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EDITORIAL NOTES.

THE AMERICAN TEACHER greets its readers with unusual pleasure as it introduces its third volume. We have appreciated all the kind and courteous words that have come to us in return for our efforts in the past, and the thousands of subscribers who have rallied with unprecedented enthusiasm from city and country, from high and low grades, have taken the most satisfactory of all methods to show that we have met a want long felt.

THE future of the AMERICAN TEACHER shall be as much above its past as our skill and the talent money can command will make it. It has clearly demonstrated that it has a field, greater, broader, more promising than even our early enthusiasm anticipated. There is practically no limit to the influence of this monthly visitor to the teacher and the school-room, if it can reach the ideal of a philosophical, practical, genial friend and instructor of teachers, toward which its constant aim is and shall be.

THIS has been the longest vacation graded schools ever had in most of the cities,—almost three months of it.

AREN'T you glad vacation is over? It has been long enough for your pocket, we suspect, but not too long for your health.

WHAT a grand summer for vacation,—so much cool weather, so little drought, so many seasonable attractions!

GIVE the scholars several bites of your vacation. Illustrate as you can the lessons you teach from what you have seen and enjoyed in the country, by the sea, or among the mountains. Enliven your school-room manner by a touch of the fun and merriment of summer days, if you find a place to do it graciously. You'll be better, as well as the pupils, for such reference.

THE use of the eye in grasping an object in its entirety, or in singling out the specific phase of it that it is desirable to observe, is an art best learned in early life.

THE hand will never be so easily trained to accurate manipulation as in the lower grades of school. The child wants to be taught to handle plants and minerals with ease and grace. He needs little instruction if he is given an opportunity and is told what to do with them. Here, especially, it is easiest to learn how to do by doing.

HABITS of politeness in their grace and gentleness will never be natural unless they be early learned. If the home neglects, as many do, then the school in the lower grades must supplement it, and culture the little folks in the art of good behavior.

BE good-natured, first, last, and always. You will discipline more effectively, teach more successfully, be in better favor with the parents, be more popular with the committee, retain your health longer, and be more attractive out of school as well as in it.

OBSERVATION is of little moment without attendant reflection. We have often emphasized the responsibility of observing keenly; and we always intend to couple with that, reflection upon what is observed. Without this maturity or perfection of observation, little mental or practical good results. At an earlier age than is gener-

ally thought, the mind profits by sitting in the hush of its own silence, meditating upon the influence of what it has observed under exciting or changed circumstances.

THE kindergarten should be made a part of the regular school system whenever public sentiment can be brought up to that point. It will never be developed as it should be, will never accomplish the good it ought until it is officially engrafted upon the general system of education. We appreciate the financial difficulty since it is expensive teaching, and there will be danger of freighting the school system with more burdens than it will bear.

THE high schools of Massachusetts are fitting thirteen hundred young men for college every year; the primary schools are fitting more than one hundred and thirty thousand children for the training of the higher schools. Interesting as it is to consider the regiment that annually marches into college, it is of greater moment that an entire army of little folk marches annually onward to the higher grades.

MR. GEORGE H. MARTIN, in the report he makes to the Massachusetts Board of Education on the condition of the high schools, says that he finds the objectionable marking system goes hand in hand with the old-time abusive use of the text-book. Almost without exception, no marks are used as incentives to study by teachers who use the natural methods in science, language, and literature. This is a suggestion worth heeding, through all grades.

THE best work cannot be done in the high school unless pupils are taught in the lower grades to familiarize themselves with minerals, plants, animals, and mechanical forces. The more a child knows from actual experience in work and play, the better equipped is he for study. Memory and imagination are both aided by having a wide range of knowledge of concrete things.

CHILDREN need to be taught obedience not merely for the disciplinary advantage to the school, but also for the life-long benefit it will be to them to have attained the power of obedience to authority. It makes a better mechanic, merchant, or professional man; a better employer as well as employee; a better leader as well as follower, to know how to obey. It is important, however that obedience comes from intelligent loyalty rather than unreasonable necessity. Vital as obedience is, it must be wisely secured to be efficient.

ATTENTION to that to which we are attracted through the senses is one thing, attention to ideas is quite another. The latter is higher than the former, and for its sake the attention through the senses is to be employed. If we pause in our training of the will of the child, short of power to give continuous heed to ideas dissociated directly with objects, we make a fatal pedagogical blunder.

IN object teaching we fail if we do not early and persistently emphasize the forces that act upon, in, or through objects. The whole science of object use in school has sometimes been brought into disrepute by this neglect. Matter is at best but a vehicle of force. Laws of matter are what we really study, or should study. While we cannot advance far in this line with young children, we can and must early prepare the way for it, by teaching them to observe motion in mechanics, animal and vegetable life.

HAVE you a dull, stupid pupil? What makes him so? It may be he has as keen a mind as there is in the school, but is merely introspective, looking and living all the time within his own mind. Many of the greatest men in history were the dull, stupid boys at school. With schemes, plans, hopes, aspirations all their own, they think more of them than of their studies. It requires tact and experience to lead such a child out of himself, away from self-attention to external affairs. It can be done, as a rule, only by making it clear that their own aims will be soonest attained by the aid of studies and investigations connected with school work.

"ONLY one thing of a kind at a time" was one of the principles that was laid down by Patrick, a native of Holstein, nearly three hundred years ago, and is as valuable a principle in education now as it was then. It is important from all that it embraces. It is quite distinct from our loose American maxim, "One thing at a time." It is "*only one thing of a kind.*" It is not only possible, but wise oftentimes, to have in hand, labors which do not exhaust the same faculties; but as two colors will not harmonize that are similar in shades, so two kinds of work with any similarity must be rigidly avoided at the same time. In arranging a program let each recitation by the same pupils be followed by its greatest extreme. Let each rest the other, as the farmer rests his land by alternating his crops.

A HABIT of clear discrimination is one of the most important elements in the teacher's mental processes. If the teacher be not definite in the use of terms, the pupils will not be. Dictionary distinctions are not sufficient. The teacher's mind must train itself to note delicate shades of meaning. By this is not meant that the pupils be strained to distinctions beyond their years, but that they be trained to keenness of thought in the use of significant words. The words Philosophy and Science may be made to illustrate our idea. We have asked several good teachers and vigorous thinkers to state the distinction between the words. Even with the dictionary in hand, it has not been an easy thing. This is not strange, since they have so much in common. They both deal with facts; Science, with the facts and problems of mental existence, organic and inorganic, animate and inanimate; Philosophy, on the other hand, confines itself to the facts and problems of rational life. The methods are the same. They merely treat of different classes of facts.

SCHOOL BEGINS.

BY A. D. MAYO.

School *won't* begin on the opening Monday of the fall term, unless you, the teacher, have already made the beginning in yourself. Thousands of teachers, this very September, will come tearing into the school-house like a breathless racer just in from some summer "heat," or a belated traveler leaping on the train at the risk of his neck. A most mischievous habit is this pushing the recreations or the labors of vacation up to the last available hour, and coming to the critical first week jaded, dishevelled, full of sharp points and ragged edges, requiring a full fortnight to regain the self-possession needed for the proper conduct of your school.

Now the first week of the term is a critical period. If in a new school, you need your best self completely in hand for the first impression, and however familiar your pupils, there will be some new scholars, and all require the peculiar influence from your best manhood or womanhood which alone can make a successful beginning. Children are sensitive to the teacher's moods, and feel any weariness, confusion, or irritability in you at once. And a room full of little folk, demoralized by you on opening week, will remain in a tangle, spite of your most heroic effort to conquer a peace. So, if within the bounds of possibility, give yourself time enough, at the close of vacation, to regain complete possession of your body, mind, and soul. If your enjoyment has been with nature, from charming society, in summer studies; or even if the weeks have been consumed in exacting home duties, you owe it to your school to place a reach of quiet days between all this and the eventful Monday morning.

And if you object that you cannot afford, on the salary of the country schoolmistress, to take time thus to put your own spiritual household in order, we reply, *then the people cannot afford you.* The most ruinous public investment is a schoolmistress who, for any reason, cannot take time to bring her best self, every day, to the most sacred ministry on earth, the ministry to the children. Such a teacher is "dear" at ten dollars per month, worse than useless at any price. If we were writing this column for the *people* of your school district we should probably voice a good many of your own thoughts concerning their astounding insensibility to the whole matter of school life. But, writing to you, we say in true friendship that unless you can put all regrets, exasperations, annoyances behind you, and face your children in the best condition possible to yourself, you had better never enter the school-house door. This does not mean that only experts or saints should teach school. It does mean that multitudes of young people, —sometimes very young and not burdened with knowledge,— can so discipline and consecrate themselves that their best hours shall be given to their scholars, and all

things that hinder the good work shall be kept, as far as may be, out of their sight. One of the most powerful sources of moral influence is the spectacle of a teacher thus handling herself in the school-room. Even the most frivolous or mischievous child feels the moral lift from this effort.

So, again, prepare yourself for opening Monday, as you would take the communion on your wedding day, or train yourself for some notable experience near at hand. And the first week thus begun will set in motion currents of influence and tides of inspiration which will float you and your school on a broadening and deepening stream to a haven of success.

ONE WAY TO TEACH BOYS.

BY REV. EDWARD THRING, A.M.

Many years ago, one spring morning, in the pleasant southern shire, when the sun shone out on the happy fields and touched with loving care the gables of my home, well do I remember how I saw, through a film of tears, a little chimney-sweep come up the road leading to the house, and envied him with passionate envy; for he might stay,—he had not to go to school, as I had,—he was not banished. In Romeo's words, had I but known them,—

"Every cat and dog,
And little mouse, every unworthy thing,
Lived there in heaven, and might look on it."

But I had to go. It is easy to laugh at a child's sorrows, but they are very real. That morning, more than fifty years ago, though many a bitter day and fierce, hard year has been faced since, still lives in memory as full of pain; that hour still holds its own as not the least wretched of unhappy times. And, indeed, in the little bounded world of the child's life there was only too much cause for the feeling; very real grounds for that emptiness of heart. School meant nothing less than light-hearted liberty gone, and a prison in exchange; where every joy, which at that time was joy, was shut out; a prison full of blind fears, daily task work, sharp and constant checks, accompanied by absolute ignorance of the why and the wherefore. From beginning to end the whole thing was a painful puzzle, a riddle without an answer. The envy of the chimney-sweep has not passed away out of the boy world, though most boys pitch their ambition somewhat higher in these days. Most assuredly the aimless riddle is as obtrusive and unanswerable as ever; but is every day answered in boy fashion, by idleness, folly, and vice. Give it an answer. The question of value is a very serious one. The boy's mind must be got at somehow or other.

That is the first thing. The teacher ought to be perfectly master of the whole question, and not merely in a vague way deal in general terms, and *ipse*

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dicts; if, indeed, under such circumstances it ever crosses his mind to say anything at all to the boys on the subject. But he ought especially, and before all things, to have some of the elementary truths about the work at his finger-ends; and to be able to drill a hole in a dull mind by a sharp, quick question, "why he is not hoeing turnips, or bird-keeping, earning 3s. 6d. a week, instead of wasting life and money in school?" and he ought to be able to answer his own question, and send a ray of light in through the hole he has drilled; or rather pull the answer out of the boy himself, by a little dexterous manipulation. There are many common facts all round of this kind, which are startling enough when attention is drawn to their real significance.

The boys of a class were once not a little discomfited and amused by something like the following dialogue:

Master.—Did you ever hear of Fortunatus's purse?

Boys (two or three).—Oh, yes, it always had money in it.

M.—Would you like to have one?

B.—I should just think so, rather.

M.—Why don't you get one?

B.—Oh, its only a fairy-story; don't I wish I could?

M.—What! you don't mean to say you don't believe it?

B.—Of course not. Who believes in fairy stories?

M.—I do. Really, now, don't you know where the purse hangs?

B. (*quite puzzled*).—No.

M.—Fairy-purses hang on the fairy-tree, to be sure; I have one.

B. (*incredulous*).—You don't say so?

M.—But I do (pulling out a shilling); that came from it.

B. (*very much taken aback*).—Are you serious?

M.—Quite serious. Where did this shilling come from?

B.—Oh, it's yours.

M.—No doubt. I did not steal it, I hope; but how did it become mine?

B.—Oh, I suppose you were paid for keeping school.

M.—Well, why don't you keep school? You told me you would like some money?

B.—I can't.

M.—Why not?

B.—I don't know enough.

M.—Oh! but what has that to do with it?

B.—Of course you must have knowledge to keep a school.

M.—Indeed! Do you mean to tell me that my knowledge turned into money?

B.—Yes.

M.—What? This shilling part of a Greek verb?

B. (*laughing*).—I suppose so.

M.—What are you, pray, doing here?

B.—Oh, we come to learn.

M.—Not to get knowledge, surely?

B.—Of course we do, though.

M.—You don't mean to say you are climbing the tree of knowledge?

B. (*twinkling somewhat*).—Well, I suppose so.

M.—To go back: where does the fairy-tree grow?

B. (*promptly*).—In fairy-land, to be sure.

M.—You forget. I said I had climbed it.

B. (*dubiously*).—No, I don't. Is it the tree of knowledge?

M.—Where did my shilling come from?

B.—From the knowledge you have?

M.—But where does the fairy-purse hang?

B.—You told me on the fairy-tree.

M.—But the shilling came from the fairy purse.

B.—O-o-h-h!

M.—And you agreed that the fairy-purse hangs on the Fairy-tree. Now, what is the fairy-tree?

B.—It is the tree of knowledge?

M.—And you told me that the fairy-tree, of course, grew—in?

B.—O-o-h-h! fairy-land.

M.—And fairy-land is?

B. (*many broad grins*).—School.

No pantomime ever made a more unexpected transformation scene than this, when the whole class, with a delighted chuckle, perceived that they had been trapped into calling school, fairy-land. For a time, at all events, they did not envy the chimney-sweep.

—From "Theory and Practice of Teaching."

HINTS IN TEACHING HISTORY.

BY GEN. HENRY B. CARRINGTON.

History, as the record of experience, combines all lessons which guide individual and national life. The success of the teacher depends upon the art with which he so classifies the facts of past experience that the philosophy is formulated into accepted laws or methods, and the lines of safety or danger are clearly defined. A loose accumulation of names, dates, and events only overloads the memory. It forces the student to accept only such as have made the deepest, transient impression; or, to treat all alike, as so many passages in a labyrinth of endless conjecture as to personal duty. There are, however, some avenues which can be followed to a satisfactory result, by getting hold of their real trend at the start, and by shaking off the accidental details which only confuse, without profit.

The prime element to be considered is the "Unit Factor," in human history. This clears away rubbish which our short life cannot afford to "pick over" for small, hidden values.

This "Unit Factor" is not one of races, nor of capacities, but of elements. The inner man has the emo-

tional nature which includes the social and moral qualities, and the rational nature which gives to the former, that is to the soul-activities, their sensible expression in active life. It means, simply, that men in all ages have had like passions, hopes, and struggles, only differing in degree or manifestation, through then existing conditions. In other words, each man answers to every other man, in his elements, and the proverb of Solomon, that "there is nothing new under the sun," is essentially correct.

This idea of unity harmonizes all human competition or struggle, and explains how it is that the issues of peace and war have been wrought out, through similar methods, in the historic past. The common distinction between ancient and modern becomes artificial and indefinite.

The application of this thought may be so made that pupils will gain new relish for historical study. Call everything ancient, if you please, that antedates our present chronology. Call everything modern that is summed up in the date of to day.

Moses, the first national deliverer, the founder of the first independent commonwealth, whose code of laws still vivifies all civilized states, will be found to have typified all that gave permanent value to immediately succeeding generations. The Hebrew fought with every great nation which claimed empire. Persia, Egypt, and Assyria were his antagonists. Their ruins bear tribute to the supremacy of a physical force which had as its energizing principle the moral welfare and personal freedom of man. The spirit of that protracted struggle was engrafted with its foreshadowed, very, substance, when the new era began, and to the pervasive force of Christianity there has been afforded the field for all possible development of man on earth.

The simple statement above given will quicken youth to a new taste for old-time history, and give them an explanation of the causes which buried empires, only to make more monumental the facts of Old Testament record.

The detailed operations of war will be as truly found to have expressed the same general methods of conduct as at the present time, with the single difference as to arms, and tactics to correspond. The siege of Ai and Gideon's victory at Esdralen were as brilliant as any of later date, and illustrate the same principles which marked the careers of Frederick, Marlborough, and Napoleon. Hannibal's plans at the battle of Cannæ are still a model, quoted in all military text-books, and "Napoleon's Maxims" are borrowed from Caesar.

An additional element in teaching history is signally important. Accepting the unit element as fundamental, there is to be added that of geographical relation. History and geography,—man, and the earth he inhabits,—have such co-relations, that neither can be so studied as to be profitably remembered unless they are

combined in memory, and have something like a common personality. It was the great art of Napoleon's campaigns that, with a map before him, he made certain geographical relations the basis of his strategy. One instance is given, as having its counterpart in the United States, in the last stages of the Rebellion.

Napoleon on the Rhine in 1806, on the French side of a quadrilateral, corresponded with the Federal base from Washington to Cairo. The North Sea in 1806, on the left side of the quadrilateral, corresponded to the Atlantic in 1861-5. The occupation of the River Main by the French, second army, on the right side of the quadrilateral, corresponded to the Federal occupation of the Mississippi and the line to Atlanta. When the Prussians on the Elbe left their base and entered the quadrilateral from the fourth side, only to find that the French right wing closed in and forced them upon the North sea, it was as when Sherman in like manner closed the square, and the Atlantic shut off escape.

Two illustrations from American history will interest youth in the two greatest wars on this continent.

In 1775 Great Britain made New York her military base. Three belts, or zones of operation, were to be occupied. If all could be seized, together, by competent forces, her success was sure. If either could be occupied, tentatively, it would bring success at last. To cut off New England, by control of Long Island Sound and the Hudson River, was the object of the occupation of Newport and of Burgoyne's campaign. To cut off the South, was the object of demonstrations to Virginia and the Chesapeake.

The true counter-policy of Washington was that which he adopted; viz., to occupy strong positions in New Jersey, as at the hub of a wheel, so near to New York, while still impregnable, that Clinton and Howe could not venture out of New York in force, without risk to their base, while Washington kept his army, compact, for effective fighting when he was so disposed.

Put upon the blackboard two questions: (1) What movements of the British army, in either zone, showed a well-defined purpose to occupy that zone with a permanent force? and (2) What operations of Washington showed his skill in thwarting that purpose? It will appear in the contrast, that Washington had Clinton in actual terror for the safety of New York, while Lafayette was shutting Cornwallis within Yorktown ready for Washington's arrival to perfect the victory.

Add two more questions: (1) What was the value, if any, of such British operations as those of Arnold at New London, Tryon in Connecticut, Simcoe in Westchester Co., N. Y., and most of Tarleton's operations in South Carolina; and (2) Why did Washington ignore these minor dashes and leave local resistance to local militia? The answer to the first will be, that such incursions only angered the Colonists without weakening Washington's army; and to the second, that Washing-

ton beheld the British waste of men and means with the serene confidence that some decisive issue would yet secure victory to his army. This strategy did indeed secure independence. A table of every battle and skirmish of the Revolution can be so distinguished by the thoughtful teacher, that the pupil will entertain new respect for Washington as a patriot and soldier, and follow his career with discriminating delight.

In 1861-5 the same principle obtained. The Federal right zone was beyond the Mississippi, and the left zone was east of the Alleghanies. These barriers were as distinct as was the Hudson or Chesapeake in 1775-81. But when the control of the Mississippi, with the advance upon Atlanta, and the position before Petersburg, assured to the columns advancing in each zone, certain success, the end was near. Prior to that, and so long as the Confederates held a strong center, and an interior line from Richmond to Chattanooga, so that the same army could fight the Army of the Potomac and the Army of the West, the Confederates were in a position like that of Washington in New Jersey when the Highlands, New York, and Philadelphia were equally within his reach, and the British could not advance upon each with an adequate, independent force.

As Belmont, Donaldson, Shiloh, Vicksburg, and Petersburg suggest the greatness of Grant, so do Trenton, Princeton, Brandywine, Germantown, Monmouth, and Yorktown illustrate that career of Washington which commanded the admiration of Frederick the Great, and mark him as one of the greatest soldiers of history.

Thus it is that geographical relations and names enter into the history of individuals and nations, and the whole experience of man is but the expression of like processes, shaded by the differences of the times.

A WORD FOR THE FAITHFUL.

BY L. EUGENIE ELDRIDGE.

Are you, teacher, discouraged and tired to-night? Have matters gone at cross-purposes to-day, and the class you most relied on for commendable work and bright recitation failed you just at the moment you desired it to be strong?

Such things happen in school, even in the best disciplined and wisest ordered; and then that dreadful thought, What will anybody (being superintendent, visitor, or whosoever) think! Verily, cast these thoughts about in your mind, and,—take heart. From the sounding forests of Maine to the coast of the great Pacific, from the Canadian line to the blue waters of the Gulf, all through this great Republic, comes the testimony of thousands.

What is the testimony? Faithful teaching, at the time unappreciated; good seed, never recognized at time of sowing; constant effort, unseen at time of making:

these on the part of the teacher, often wearied and discouraged, diligent and faithful nevertheless, have in the end placed a generation where they look back with great respect and fond reverence for the educators of their youth.

Faithful teacher, you can drive the nail; time alone must clinch it. You can prepare the ground; the summer of life must yield the bloom. Faithfulness on your part, therefore, is the principal wheel of action. Abate not if the pupil be dull and wanting interest. If you neither weary nor faint in *your* share of the preparation, in due season the harvest may be forthcoming. If otherwise, the skirts of your garments will be clear, your duty unflinchingly performed. Look to the end, and lay the foundation accordingly.

The true teacher sees not only the good or ill recitation of the class to-day, but beyond, just a little beyond, when some possible opportunity for the practical application of that lesson may occur; and the test of application often proves the test of the teaching, the faithfulness thereof. Faithful work is more than fitful brilliancy; its character will ring while time shall last. Then whatever the discouragements, however hedged the way, cling to this sort of doing. In the end the reward of the faithful shall be yours.

A CHAPTER ON POSITIVE MORALS AND PRACTICAL PEDAGOGY.—(II.)

(Translated from the French by MARION TALBOT, A.M.)

THE FOUR REMEDIES.

Gymnastics.—All who have given their attention to certain habits which make so great ravages among the young people who have contracted them, are unanimous in recommending gymnastics and athletic games as a preventative measure and curative at need. Why should not these means give like results in the use of tobacco? Happily, gymnastics have to-day passed into the required domain, but gymnastics, properly so-called, cannot be carried on constantly, while games are always welcome if they are skillfully varied. This is what the teacher who has a care for the morality of his pupils should watch over with the greatest solicitude, and make all participate, the large ones even more than the small.

Evening Classes.—A report was recently made of the curious but sad experiment made in Belgium relative to the actual learning of the soldiers. Twenty-seven elementary questions were given them to which they responded in writing. The result was appalling, and proved without doubt that if anything had been learned in school it had all been forgotten at twenty years.

Now that corporations are reviving under the form of professional syndicates we would like to see the government, employers, and workmen seriously undertake business instruction and ask for the co-operation of

teachers and friends of popular education in order to join the ideas which develop the head of the family, the citizen, and the man to their technical lessons. Savings and assurance associations should be insisted upon in these evening classes, and the young man should be turned aside from smoking by showing him how greatly the drawbacks of tobacco outweigh its few advantages.

In addition to the attainments which young people always acquire in frequenting evening classes, there is also the advantage that they are during this time withdrawn from the fatal allurements to which the idle man is exposed. During the time when the young men of a locality are assembled at school, several pounds, at least, of tobacco, might have been consumed. If these supplementary classes are prejudicial to any, they are certainly so to wine dealers and the like.

Music.—This is another sovereign remedy for the bad results of idleness. If the teacher in each district could form groups of young people (and why not men grown?) with this object in view, is it not true that the consumption of tobacco would considerably diminish? It is not only the time during which a rehearsal lasts which is gained, but also all the minutes at home, in the field, or in the workshop, which are spent in humming the airs previously studied. Moreover, the man whose soul is elevated by singing a sweet melody is far from lowering himself to the level of coarse pastimes. Music is too much neglected as a powerful means of developing morality. We seem to ignore the fact that "the taste for the beautiful leads to the taste for the good."

Libraries.—We come next to libraries, which seem to be the crowning of the work. One cannot always sing; it is not always possible to assemble with others, but at least it is always easy to read. It would be superfluous to seek to point out the advantages which, in this connection, reading has, and the usefulness of academic or popular libraries. These advantages result not only from the ease with which instruction is given on the dangers of tobacco by means of special works, but principally because the young man finds in reading an agreeable way of passing his leisure time, which is an important matter at an age, which we may call critical.

It is a more difficult task to lay the foundations of a good library than is generally thought, for it is not enough, in order to be successful, to gather together a certain quantity of books; it is also necessary to have readers and many of them. The choice of books should always be irreproachable, but it should be even more scrupulous when the object is to establish a work of this kind. The first books must be interesting in order always to offer, together with a fund of usefulness, a certain attraction which makes one wish for them. Heretofore this side of the subject has not, perhaps, been considered with all the interest it merits.

Several districts might be associated to establish

libraries in such a way that each should acquire different works, which would pass successively to the others; or else there might be a central library, whose duty it would be to provide the others in turn.

THE TEACHER'S PART.

The plan to be followed by the teacher is naturally divided into two parts. The first includes the age when the child attends school, and the second the whole period comprised under the term adolescence.

First Period.—As soon as the pupil begins to go to school the teacher should inspire him with a profound love of order, guarding him with paternal care in all the little details which compose the child's school life, and forming in him a habit of thrift without which all his other efforts will be in danger of bearing only meagre fruit.

It is at this age, as we have said, that he should excite in the child a strong feeling of repulsion for tobacco. This result is the more easy to attain in proportion as the child has an instinctive dislike for everything which has a marked odor. He should appeal, also, to his imagination and his compassion by drawing an apt picture of poor families whose fathers spend their money for smoking while the children cry from hunger and are scantily clothed.

At this time, too,—that is to say, during the first three or four years,—it is well to appeal to the growing reason of the child. It is very well to forbid him to do what is bad, but it is still better to make him see, when it is possible, why what is forbidden is bad.

Little questions like the following are here quite in place: How much would a man pay out in a week, a month, a year, who takes four cents' worth of tobacco a day? How much bread, meat, or how many books, could he buy with this money? This is what can be done for the youngest. As to the others, whose intelligence is sufficiently developed to understand more elevated matters, the teacher should speak to them in a more extended way of the pernicious properties of tobacco; of the degradation and kind of slavery into which a man falls who cannot resist a bad inclination; of the irresistible force of habit, which becomes a virtue when applied to a good cause and a vice in the opposite case; of the virtue of thrift; with figures to give as examples.

The teacher has four principal methods by which to enlighten the child's reason and strike his imagination with a healthy terror. They are, familiar talks, special dictations, arithmetical questions, and composition.

By the last means he can, for example, transport the pupil to a home where the fatal passion of the father deprives the family of sufficient food. The child, who ordinarily has a good appetite, is alive to the idea of the suffering occasioned by hunger. Again, he may seek to reproduce what happened in a fire, occasioned by smokers,—the misery which resulted, the devotion of

some persons who, perhaps, perished as victims to their self-sacrifice and the deed of the smokers.

The establishment of a savings bank is now a necessity, whose importance is perhaps better realized at this time, as the pennies become more common in the hands of the older pupils.

It is particularly during these years that gymnastics and sports will be of use in all schools, and chiefly in those where the pupils do not go home between the sessions, and take their lunch and recess in the building.

Second Period.—Pupils frequently leave school at thirteen years of age. Does it follow that the teacher should completely give up his interest in their future and lose them from his view? On the contrary, the more critical the time, the more constantly and more skillfully he should look out for evening classes, musical societies, and libraries. He will find it of great interest to associate with him, in the foundation and support of the libraries, the students of the evening classes, because the more the books are theirs, so to speak, the more they will use them.

No measure should be neglected to achieve these three results. In addition, he will not wait until the scholars have actually left school before inspiring in them a love for music and reading. These should make a part of the whole school life.

PRIMARY WRITING.

BY EDWIN SHEPARD.

To obtain good script letters from children five or six years of age involves a larger amount of severe, intelligent work than is required in teaching any other subject at this period.

This statement is true when applied to teachers who have, to a large extent, mastered the art of writing; how much more difficult, then, becomes the task when the teacher is an indifferent, if not an absolutely poor, writer. This great qualification on the part of the teacher has been sadly neglected by normal and training schools; but the time is not far distant when every graduate from these schools will be required to demonstrate, on both blackboard and paper, her ability to make and teach the correct forms used in writing.

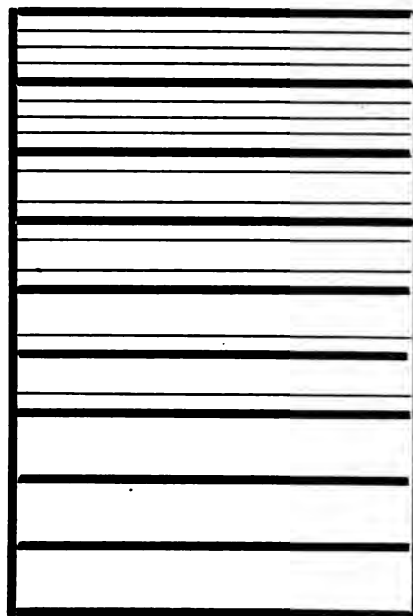
The little child must have the correct models before his eye. He can get these forms in either of two ways: from a good writing-chart, or from words on the blackboard made by the teacher. The former furnishes separate forms only; the latter gives not only separate letters, but combines them into living forms, that mean so much to the pupil. How hopeless to the little child must be a task which the teacher, after years of experience, has not mastered.

To get the best results in writing, the teacher must be a good writer. How many of my readers can go to

the blackboard and write a short sentence so that it will serve as a nearly correct model for imitation?

A good writer with chalk or pen becomes an inspiration to the pupil, and, all other things being equal, such a teacher will be a success.

How to Rule Slates for first year's work in school.—Rule only on one side of the slate, in the following manner:



To make the above cut, place dots on the sides of the slate, three-sixteenths of an inch apart; connect these dots with horizontal lines, so as to produce the above result. This gives all the horizontal rulings used in writing. After a few months' careful practice, the child will write as well upon the single line at the bottom of the slate as upon the full ruled line at the top. Do not use the top lines any longer than is necessary.

By breaking out the points of a Gillott pen the slates can be ruled rapidly and with perfect accuracy. Make the base line a shade heavier than the others.

THE FIRST LESSON.

Draw upon the board, directly in front of the class, the Writing Staff; this consists of six lines and five spaces. Make the lines two inches apart. Show the pupils the base line, and teach them that upon this line all the short letters rest.

On the base line write slowly a small *i*; be sure you have the correct form. This little letter is the key to all the small letters; it is the foundation stone upon which all others rest. Fix forever in the mind of the child the correct form; train his hand so that he can write this letter correctly, and your foundation work has been well done. Do your work so well here that the teacher in the next higher grade can take up the work and carry it on successfully.

Position at the desk is of the greatest importance. See that the feet are placed squarely on the floor. The slate should lie upon the desk. Have the pupils sit up straight, and never get the eyes nearer than twelve inches to the slate; from twelve to eighteen inches is the correct distance. Drill on this position till every one gets it. Do not hurry; it may take you several lessons to get this position as it should be. The lesson should not exceed fifteen minutes in length.

Now try the pencils, but before you begin see that they are long and sharp. Are the slates clean? Do not try to get a clear line upon a greasy slate, with a short, blunt pencil; *it cannot be done*. Write only short slant lines at first. Show the little ones, at each step, when and how to place the feet, how to sit erect, how to hold the pencil, how to make the lines. Remember that they are little imitators, and are looking up to you as an example; see to it that you are a perfect one.

SKELETON LESSONS IN PHYSIOLOGY AND HYGIENE.

BY ALICE M. GUERNSEY.

"Physiology and hygiene, with special reference to the effects on the human system of alcoholic drinks, stimulants, and narcotics." This phrase is a familiar one to many teachers in our land, since it outlines for them, in fourteen states of the Union, a line of work which is often a "new departure." In most high schools, and occasionally in the upper classes of grammar schools, physiology has been taught to a greater or less extent; but until lately few superintendents or teachers have introduced it into the lower grades, or realized that in its use they had a powerful weapon against superstition, folly, and crime.

Experience proves that it is an easy matter to interest and instruct even the "wee folk" in the growth and care of their own active little bodies, and that the science is capable of perfect gradation; the tiny toddler in the kindergarten can learn that he possesses bones which increase in size because of the food he eats, and the knowledge of the four-year-old who chatters about his food going into "my stomach and way down to my toes," is, when properly taught, as scientific, so far as it goes, as his knowledge that "one block and one block make two blocks." The intricacies of digestion, absorption, and assimilation, belong to a later stage of study; but they are as logically dependent upon the first principles as are trigonometry and the calculus upon the addition table. Add to this the fact that in Massachusetts, for example, 95 per cent. of the children never enter the high school, and 50 per cent. do not go beyond the primary school, and the value to the homes and civilization of the future, of teaching this subject in the lower grades, becomes self-evident.

These lessons, as indicated by the title, are not sent forth as rounded, perfect wholes, which can be used in a class, *verbatim et literatim*. The mind of the true teacher is at once a furnace and a mould,—a furnace in which sterling metal of theories and facts becomes fused to a homogeneous mass; a mould in which are shaped new forms of thought, and speech, and action. Mental as well as physical food must be assimilated before it can contribute to growth.

It is hoped, however, that the suggestions of these lessons may be a help to teachers in preparing similar ones which shall be adapted to the needs of their individual classes. The sign $+$ indicates that but a few of the many questions and directions needed are written out under a given division of the subject. No attempt has been made to indicate the length of each lesson, since each teacher can arrange that better for himself.

I.—THE NERVOUS SYSTEM.

"Fold your arms in front. Clasp them on top of your head. Stand erect. Take one step forward." $+$

"How did you know what to do?" ("You told us.")

"You may each do something that I do not tell you to do." (Question as to the acts performed, requiring such answers as, "I wrote on the blackboard." "I shut my eyes." "I closed my hand.")

"How did you know what to do this time?" (Quite likely the answer, "My brain told me," will be given. Others may say, "I told myself.")

If no satisfactory answer is obtained, develop the idea of the brain negatively. Nearly all children have seen persons who had lost a finger, an arm, or a leg, and are aware that the thinking-power is not destroyed by such accidents. Similar questions will fix upon the head as the seat of the mind. The term 'brain' may then be given, and its appearance described. Let each child feel, under its coverings of hair and skin, the skull or bony case of the brain. Describe the soft, delicate structure of this organ, and its membranes. Give to each the meat of one-half of an English walnut, as an illustration of the brain-convolutions. The ultimate disposal of said meats will readily suggest itself. Show also a piece of brain-coral to illustrate the same point.

"You may each do something with your feet or your hands." (Question as in a.)

"But your feet and hands are a long distance from your brain. How did they know what to do?" (If the children can give no satisfactory answer to this question, show how we communicate our wishes with in limited distances by speaking or gestures; at greater distances, by letter, the telephone, and telegraph. The latter, being voiceless, is the best illustration of the nervous system. Give the term 'nerves,' and make sure that the children have a definite idea of them as white, 'shiny' cords of various sizes, some being too small to be seen by their unaided eyes. The nervous

force is so wonderful, so unexplainable, that children are inclined to think of the nerves themselves as intangible and mysterious. I remember well the peculiar feelings which came over me when I first saw a nerve, as the dentist removed a dead fragment of one from the cavity of a tooth. Only since then have nerves been to me anything more than sensations.)

"Suppose you are very sick, and your father is away. What would your mother be likely to do?" (Obtain the answer, "She will telegraph for him to come home.")

"Well, he knows how anxious she is, and so he telegraphs back, "Coming on next train."

"How many messages have been sent on the telegraph wire? In how many directions?" + (Illustrate by other incidents of message and reply.)

"Shut your eyes and hold out your right hands." (Touch the outstretched hands.)

"Did anything happen?" "What?" "How did you know that something touched your hand?" "Suppose you had wooden arms, like Mr. B——; Could you feel a touch on the wooden hand?" + "Where did the message start?" "Which way did it go?" + (Give the name "nerves of feeling" to the kind thus found, and dwell on the point until it is perfectly clear in the child's mind. In a similar way, illustrate the "nerves of motion," and the united action of these two sets of nerves, using the experiments so familiar to the child of the finger against a hot stove or pinched in a door, of a fly lighting on his forehead or a bee on his foot, etc. Guard against the conclusion that the nerves are only in hands. Give full play to the wonder of the child at the almost instantaneous transmission of messages. Illustrate also, but very simply, the action of the nerves of sight, affected by light only; of hearing, by sound only; of taste, by substances held in the mouth; and of smell, by odorous substances. With young children, each of these special senses is enough for a complete lesson.)

SLATE WORK

1. Write the messages that are sent to and from the brain when your finger touches a hot stove; when a mosquito lights on your face; when some one calls to you; when the sunlight is so bright that it hurts your eyes; when you try to see in a dark room.

2. Write on your slates, *Alcohol is a poison*. Under this write the names of all drinks that you know which contain alcohol.

3. What poisonous drink is made from grapes? currants? elderberries? apples? barley? corn?

4. What kinds of food that are healthful and pleasant, are made from grapes? currants? apples? barley? corn?

"Flower in the crannied wall,
I pluck you out of the crannies;
Hold you here, root and all, in my hand,
Little flower; but if I could understand
What you are, root and all, and all in all,
I should know what God and man is."

—Tennyson.

DRAWING FOR VERY YOUNG CHILDREN.

II.

While arranging my portable blackboard I ask, "Children, what do you think we're going to do to-day?"

"Make pictures," is the prompt reply.

"Yes, you are right. Now, who remembers of what we drew a picture last week? I see Deedie's hand raised, so he may tell us."

"We made a picture of the clay ball."

"So we did; and I wonder if you all could make just the same kind of a picture again, only try to draw a nice one to-day. Louis may tell us where to draw the pictures."

"On our slates."

"Yes; but do you think it would please me to see the pictures in a corner of the slates, children?"

"No, Miss Grace," the children answer; "we must put it in the middle of the slate."

"You may all touch the middle of your slates with your pencils, and begin to draw."

I have found that it increases the interest in the work to introduce a little song just here. Any simple rhyme, descriptive of a round-and-round movement, set to bright music, will serve the purpose.

As soon as every child has reproduced the picture from memory, I allow the nicest work to be examined by the class. If any child is unable to do the work, or if repeated erasing occurs, the teacher must give individual assistance; a little help just now may prevent the formation of habits that would be hard to eradicate later.

When all have accomplished all that I think necessary, I ask, "What do you think we're going to draw now?" and turn my board around.

"Balls," suggested Ned.

"Not exactly, Ned; watch me, and see who can tell what I'm making." Meanwhile I draw in the upper right-hand corner of the board a ring. Of course various guesses are made, but it's immaterial what the ring is named.

"Now, turn your slates," I add, "and see if you can find anything that looks something like what I have drawn." Previous to the lesson two rings, in opposite corners, have been drawn upon each slate.

"I've found a roundy thing!" Willie exclaims.

"So have I,—so have I," come from various children; so I direct,—

"Find the 'roundy thing,' as Willie calls it, in the upper, right-hand corner."

All do as I wish, then lay down the pencils to watch, while I slowly, with a swinging-arm movement, fill in the outlined ball upon the board. Then I ask,—

"What can you see now, Nellie?"

"A picture ball."

"What do *you* think it is, Joe?"

"Looks kind o' like a marble."

"So it does. Let's all draw the picture of a marble. How shall we do it, Frankie?"

"Go round and round in the 'roundy' place, up in the corner of our slates."

"That's right; only be very careful that no little marks fly outside the 'roundy' place." When one outline is filled in, direct the other in the opposite corner to be done in a like manner. It's a capital plan to have the pencil held in the left hand while filling in the second ring. Show the nicest work, and keep constantly the feeling uppermost that "quality and not quantity" must predominate. I have found that much individual assistance must be given in this lesson, as well as encouragement.

This seems a very simple lesson, but if you consider it carefully you will discover that it is a little difficult for a child of four or five years; for to-day's lesson introduces drawing from memory and dictation in connection with a repetition of the first lesson's imitative work; the same hand and arm movements are continued, though restricted, since all lines must be drawn within the ring. An understanding that space will be often limited in drawing must come sooner or later, and I've found that beginning very early with a class prevents much scrawly, careless work later in the course. Not the least gain, just here, is the knowledge of another round object; this object-work arouses so much interest and observation that in a very short time the children will select with great discrimination anything that is round in any of its parts.

M. E. C.

HINTS FOR THE DISTRICT SCHOOL.

BY EVELYN S. FOSTER.

If it is necessary to find pleasant and improving occupations for the little ones in the graded schools, it is certainly even more important in the district schools, where the many studies of the older pupils take so much of the teacher's time and attention. I once met a lady who said the ages of her pupils ranged from four to eighteen years, and the branches she taught included the primer and algebra and all the intermediate studies. In such cases, the teachers cannot give much time to the little ones who are just beginning their school life. What, then, shall she give them to keep them happy and quiet and profitably employed? I once, for a few months, taught a district school, that perhaps afforded even more variety in the way of age and studies than the average district school. Visitors often remarked on the happy faces of my little ones. I wish some of the devices I employed might help some sister teacher in a similar position.

A box of letters, originally designed for playing the

game called "Word making and Word-taking," gave my children much pleasure. I often divided the letters among them, and each child tried to surpass the rest in the number of words he could make. I distributed these letters, at recess in the afternoon, to the children who had been good during the day, so by them the little ones were allured into good conduct, both before and after receiving them. The pupils placed the words they formed upon their slates, and if a slate was shown to a chance visitor, how proud the owner felt! One boy once surprised me by forming fifteen words and using nearly all the letters given him. The little ones enjoyed this work so well that those older begged for the same pleasure. I occasionally granted it to them as a reward for a good recitation in a difficult lesson.

The box of letters was not only useful in teaching the little ones to spell, but also in teaching them the first lessons in arithmetic. By their aid the children formed the multiplication-tables. An ingenious teacher will find many ways to use them beside those I have mentioned. I sometimes secured a good recitation from my older pupils by offering as a reward to those who did well, the pleasure of teaching the little ones in the entry for a half-hour. I had one pupil who was fourteen years old. She was a good girl and did well in several studies, but was very backward in arithmetic. I soon found that to her even "Multiplication was a vexation." Remembering that some one has said, "We never know anything until we have taught it," I asked her, when she won the reward, to drill the little ones in the multiplication-tables. Another, who was weak in spelling, sometimes taught that lesson to the lower classes. In this way the older pupils helped themselves and me also.

A teacher beginning her work in a district school often finds the pupils deficient on the ground they have already been over. If she puts them back she disheartens them, and very likely incurs the ill will of the parents, which evils it is for her interest to avoid. I overcame the difficulty in this way. I gave my first class in arithmetic, who were studying percentage, an advance lesson, and offered them extra merits if they would recite also, for review, in the class studying long division. That class in turn, for review, took examples with those beginning addition. I followed a similar course in reading. I did not make these reviews compulsory, but tried to make them appear to the children, what they really were, a privilege. They became very popular, made the classes larger and more interesting, and afforded a healthful stimulus to both younger and older pupils.

Of course I allowed my little ones, at times, to write upon the board, and as a reward for good lessons or good conduct would occasionally allow them to use the colored chalk. Those who do not know how happy a little thing can make a child, would be surprised to see

the power that lies in even a small piece of colored chalk. When the children wrote upon their slates for busy work, I sometimes told them to write all the words they could think of containing three letters ; on another day, those containing four ; and so on, as "they grew in knowledge." For this suggestion I am indebted to a friend. One class worked for several days, in the time they could spare from their regular lessons, in writing a list of things decorated with imitations of flowers. Another class was very greatly interested in finding the names of things made from iron ; and another, those made from wood. Both enjoyed making a list of the names of musical instruments.

Sometimes, when there was a little restlessness in the room, I secured a pleasant calm by saying : "Now we will have ten minutes of hard study ; let the room be perfectly still, and I will tell you when each minute has passed. Let me see how many can keep their eyes on their books all the time." My pupils have enjoyed these quiet moments. Perhaps in some schools five minutes would be better than ten. In others, possibly fifteen would not be too long. In both a graded and a district school, it often rests the children, and helps them to be quiet to study, standing, for five or ten minutes.

PRIMARY LESSONS IN BOTANY.

BY MRS. FANNY D. BERGEN, PEABODY, MASS.

III.—LEAVES.

Ask the children to bring into class some leaves for study. You may be sure a quantity will be heaped up on the teacher's desk, for children like to do things, and they should be encouraged to be subjects of action rather than of passive verbs.

Hold up some leaves (*e. g.*, apple, cherry, mint, etc.)

What are these? "Leaves."

Yes ; now of what use to the tree or plant are these pretty leaves?

"To look pretty."

Certainly they are pretty ; but by and by you will learn that beautiful as are nature's works, her rule is to have some useful purpose in each thing she does. So you may be sure these leaves do some helpful work for the plant, else nature would not encourage them to grow. And they will be no less beautiful to our eyes when we learn that they do some good. You remember the old saying about children : "Handsome is that handsome does." I think it is also true of leaves and other parts of plants. Now let us see, if we can, just what is the use of these green leaves.

We learned, a while ago, how the cunning, hungry little root-hairs on underground roots drank up nutrient or food for plants from the ground. But this liquid food is not all that is necessary for the life of plants.

What besides eating and drinking must we do to live? Hands up! "Breathe," you tell me,—certainly. You did not know that plants as well as animals breathe?

Wait a bit and you will see. Look closely at this sprig of mint¹ which you saw me place under water at the beginning of the recitation. What do you see?

"Little bubbles rising in the water."

That is right. Now, you know, this shows us that air, or something like it, is passing on through the water. Where does this come from, do you think?

"From the plant?"

Yes, and what do you think the plant is doing? Well, it is breathing, much as you and I breathe. You learned the other day that when we breathe we first draw air through our nose down into our lungs, and after keeping the part of the air which the blood needs we then breathe out the impure air ; so we must keep the windows open, that fresh, pure air may enter for us to breathe. Now do these bubbles rising through the water show that the plant is sending out, or taking in, air?

"Sending it out."

Yes, and you cannot see the leaves breathing *in* air, for the tiny holes on the under surface of the leaves through which they breathe are so very small that one can only see them by looking through a very powerful microscope. These breathing-places are so small and so close together that if you put the tip of your finger on the under side of one of these leaves you will cover hundreds of them.

To show you how little waste there is in nature's works, I may tell you that the very part of the air which people and other animals send out from their lungs in breathing, as useless, is that which plants retain as they breathe.

But generally plants breathe out the very part of the air which animals must have in order to live.²

Watch me now while I light this match and let it burn slowly. You see this black substance that is left which is something the shape of an unburned match? What do we call this black material that is left, when wood is partly burned?

"Charcoal."

Yes ; well this, charcoal, which forms a great part of the solid substance of plants and trees, is made by them from that portion of the air which they keep as they breathe. You are too young yet too understand all about the way in which plants can do this, but you

¹ Any kind of leaves which the teacher finds will give off bubbles freely in the sunlight when immersed in water, will do as well as mint.

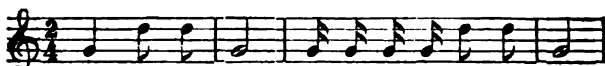
² Explain fully how these facts are illustrated, by an aquarium, in which both aquatic plants and fish are kept, and make it clear to the class *how* the plants keep the water fresh and make it unnecessary to change it. If possible show the pupils a little aquarium, which may be improvised from any glass jar.

can remember whenever you see charcoal that it once was in the air in a form in which it could not be seen, and was breathed by plants and trees and was made over into this solid black substance.³

ABOUT PRIMARY READING.—(III.)

BY BESSIE E. HAILMANN.

The teacher then suggested a new game, "Santa Claus." A hasty sketch of Santa Claus with his Christmas tree, done in colored crayon, added new charms to this interesting subject,—the game was only a device for teaching a new song. The children closed their eyes, awaiting Santa Claus's visit, listening with all their little might for the bell to ring, and for Santa Claus to announce his presence, while the teacher sang:



Ring, kling-ling-ling! Kling-ling-ling-ling, bell, kling-ling!



Winter winds are blowing! Cold the night, and snowing!
Grate-ful car-ols sing-ing, See the gifts I'm bring-ing!



Children, come and greet me! O - pen, I en - treat ye!
For each boy and maid-en Rich-ly am I la - den.



Ring, kling-ling-ling! Kling-ling-ling-ling, bell, kling-ling!

Then eyes opened. What have you, Sammy, Willy, Ella, etc.?—the children, in turn, describing the many gifts received. This listening, and subsequent conversation, was repeated until the children had learned the tunes well enough to make a fairly successful attempt at singing it to their teacher, who received a beautiful book, among her numerous presents.

This game of "Santa Claus" can be used to great advantage in teaching object-names. Let the children go to sleep, and while they are asleep hang the objects, where names are to be taught, upon the board, or make a sketch of a Christmas tree upon the board and hang the objects upon it.

This draws upon the imagination; in so doing care should be observed, lest a spirit of untruthfulness be encouraged. It is well to say to the children, now and then, "It isn't *really* so; we only love to *play* so."

³ The present lesson, like the one which preceded it, has for the sake of brevity been cast mainly in the form of a monologue. It contains material which may properly be divided into several consecutive recitations. Before the subject of leaves is dropped, a number of other topics in connection with them may be profitably talked over; such, for instance, as the general (flattened) form of leaves, leaves growing under water, and underground leaves.

For review lessons, have letters written by yourself or by different members of the class. The postman (one of the children) knocks at the door, bringing *sealed* and *stamped* letters, directed to certain members of the class. This letter-bringing is an incident in a game which you are playing. You are a group of pleasure-seekers, visiting some real place of geographical interest concerning which you are all gaining some real information. For instance, you are at the Exposition in New Orleans, where bananas, oranges, and palms are found; that sheet of water, just visible out of the window is, of course, the Mississippi, etc., etc. The ways of giving *incidental knowledge* in an *interesting* way, are too numerous, by far, to put on paper. When these letters from home have come, great interest is felt; we must read them to each other, as we are all friends, and anxious to hear from those at home. These letters should contain useful information, or some moral lesson.

No opportunity should be lost of directing the children's attention to what is noble and good. Words of wisdom may sometimes *appear* lost, but they come back with redoubled effect, in later years, when the time for *advice* is gone.

When a "book" reading-lesson is given, let the matter be as interesting, sensible, and improving as possible. This advice may seem superfluous, but its use appears when the children yawn over the dull lesson, and when we realize that much of the bad taste in their selection of reading-matter, in later years, is brought about by these same reading-books.

Readers, for little children, it is to be hoped are losing ground. Even if the reading matter were good, the fact that it is stereotyped in a certain form makes it inapplicable to any two classes of children; they want something flexible, like dissected cards,—something that can be readily adapted to their surroundings.

Adaptability is an attribute of power. When we become masters of the situation, we shall no longer stand awkwardly, stiffly *before* our children, but *among* them; strong yet yielding, reserving our force,—holding it in keeping for them.

We shall not try to save time by putting him in a program, and find it is like holding water in a sieve (the water gone, and the sieve and tired arms remaining for our pains); we shall see that energy allowed to flow for a while in one way, then forced back upon itself, before it can find another path, is wasted, and realize that each study should be the result of the one before, and no two days can ever be exactly alike, or definitely foretold. And we shall feel, as we have not yet felt it, that old time truth, simple and beautiful, "A little child shall lead them."

— The word pamphlet is derived from the Greek authoress, Pamphyta. Pleasure is derived from the use of those delightfully easy writing pens made by Esterbrook.

MISS WEST'S CLASS IN GEOGRAPHY.

BY FRANCES C. SPARHAWK.

XII.

"Frank," said Miss West to little Frank Blake, "if you and your grown-up brother, Edward, should start together to walk from this school-house to your home; if each walked as fast as he could, which would get there first?"

"Ned," answered Frank.

"Why?"

"Because he's grown up and can take longer steps than I can,—only I might run."

Miss West smiled, and said, "No."

"In the history of the United States, which you are beginning now, you must remember one thing," she went on; "the way it was settled, and the way that most countries are settled. There is the same difference that there is between Frank's big brother getting over the ground, and Frank himself trying to do it." Miss West waited a moment, looking at the children, then she said: "Now I wish that some of my class could tell me what I mean. Won't you try? Think very hard."

There was a long pause, and at last Lily White asked if she meant that most countries were settled by children.

"Yes and no," answered the teacher. "No, because they were not really children in age; and yes, because sometimes they were not grown up in their minds, in the knowledge of how to conquer difficulties, and most of all, in their wish to be educated and to be free. The people who came here from England knew what to do, how to put the country into order, how to bridge the rivers and build the cities; they did not have it all to learn after they had settled here, because they came from a country of cities and towns where business of all kinds was carried on, and they brought their knowledge with them. Now, in the same way a great many of the people out West came from New England, and they took with them the knowledge of how to do things. So the great valley of the Mississippi and the basin of the Great Lakes, or at least a part of these, are full of people and cities and business. Now we want to find out what kind of country it is, and where the great cities in it are, as well as about the lakes and rivers. What should any of you try to do, if you were looking for a place to build a house upon?"

"Try to get a first-class place," cried Johnny Smart.

"In the same way here you will find that the cities are in the first-class places, as you call them, for business. Ned Hansom, please draw for us on the board the eastern coast of the United States, with the name of the ocean that borders it, and with the mountains and the large rivers that flow from these into the ocean.

Draw it well to the east, so that we shall have room for the great valley, and the mountains west."

When this map had been done, Miss West outlined behind it the great lakes and the Rocky Mountains. She then drew a dotted line down the lowest part of the valley, between these and the eastern ranges; she made it from lakes to gulf, and explained its meaning. "Let us imagine," she said, "two long rows of roofs, with gutters and spouts, standing facing each other, on the sides of a broad street. Let us say that one row of buildings is a good deal higher than the other, and that the street gutter is only on the side of the street nearer the lower buildings, because the street itself slopes from the other side. Now, when it rains, what will happen?"

"Water will pour down the roofs, down the spouts, across the sidewalks and the street into the gutter," was the substance of the children's answer.

"Why?"

"Because it is the lowest place," said Carrie Blunt.

"So, that if we find the lowest place in the valley, what will be there?"

"A river."

"Yes, a river; and, together with its largest tributary, the longest river in the world, the Mississippi. Now on which side of what would be the exact middle distance between these mountains does the Mississippi lie? Look at my line."

"On the eastern."

"Then on which side of the Mississippi does there come the largest river to flow into it?"

"From the western," cried Johnny Smart; "because it has the longest way to run."

"You are right," said the teacher; "and you always will be when you make the use of your common sense as much for your studies as for your play. If I should tell you merely that the Missouri river is the largest one that flows into the Mississippi, and that it comes from the west, you might forget it; but if you see why it is the largest, I don't think you will."

"It's good fun to know the whys," said Carrie Blunt.

"It makes me keep thinking of other whys about other things," said Lily White, "and somehow things belong to us more; it don't seem so funny children should have to learn lessons, I mean."

"And perhaps we could tell some things ourselves," said Frank Blake.

"I don't doubt it," said Miss West, warmly. "Wouldn't you like to tell me about the Mississippi valley, and all the lands that slope to it?" And she hung upon the board an excellent map of North America. "Try; if you fail it's no harm, and if you succeed it will be splendid."

"First, away up north," began Mary Summers, "there's an ocean, and there's a big river that runs into it, so the land there must slope down from some place like a ridge-pole, as you told us."

"I see," cried Ned Hansom. "There's your ridge-pole, it runs right up on the west there. But there ought to be some mountains down there between the rivers that run down hill and the up ones,—I mean south and north."

Miss West showed an offshoot of the Rocky Mountains running a little distance toward the east, and explained that the land had a gradual slope each way, but not enough to be mapped as mountains."

"Then those big lakes," cried Johnny. "Miss West, do they empty from one into the other just as if we should take big bowls and keep pouring water from one into the other?"

But here the clock struck twelve, and the children were dismissed, eager to think and learn all that they could upon the subject before the next lesson.

FINISH, IN SCHOOL WORK.

BY MRS. E. D. KELLOGG.

Two teachers ran into town on a shopping excursion, one day just before the close of the summer vacation.

"What *are* you going to do with those sponges and all that dark calico?" asked one of the other, in genuine amazement.

No answer from the other, as she proceeded to read from her list.

"A box of colored crayons, if you please, one of sharpened slate-pencils, and another of colored splints," she went on imperturbably, while her companion asked in an undertone, "Are you crazy?" and really looked concerned.

"I will tell you going home," she answered, and on the ten-mile ride out to their summering place, they had "a talk," in which some good things were said, which a good many teachers ought to hear, and that is why I am reporting it as a realistic text to be followed possibly by a short,—very short,—sermon.

"You see how it is," began the young lady suspected of lunacy; "I am not coming into town again before the first of September, and so I got these things to-day for my school-room"——

"Yes, but why do *you* buy them at all," interrupted the other, "it does not belong to *us* to furnish such things."

"You are right, certainly," was the reply, "but how are we to get them without? Have I not been all these years finding out that if you want something done, do it yourself, and if not ask somebody else? Why, I've waited for weeks for grown-up children to get the necessary sponges and slate-cloths (for that is what my calico is for) only to find from the mother's complaints that the pocket-handkerchief was the makeshift after all. What, then, may I expect from my little five year-old primaries next year? Imagine a room full of these dazed little folks in the school-room for the first time in

their lives, wondering at everything and longing to do something, and then fancy his Invisible Majesty waiting close beside each little mortal, ready to furnish the 'mischief for idle hands to do.' Why, I really feel as if I had stolen a march on the Old Fellow, in getting ahead of him to-day and buying these things, and he will go off discomfited to some other room,—yours, perhaps,—to find an office for himself"

"Still I can't see why we are expected to buy them with our small salaries," pursued the objector.

"Oh, we are not,—not at all," was the answer; "ask every member of the school committee, the supervisors and the principals, and every one will agree with you, perfectly; I only answer you all by my first question, 'How shall we get them without?' True, ceremonial red tape might unwind this box of colored crayons for me if I waited a month, but I might want them the very first hour if I should be seized with an artistic impulse to draw a cat of all colors."

Her friend looked out the window rather ruefully, fidgeted a little in her seat, and then exclaimed, "Well, it's not right for us to furnish our own apparatus, and I won't do it! Why, only last week you refused that moonlight trip to Nahant because you could not afford it, and now look at all these things you've bought to-day!"

"Now let us look at it in another light, my dear, and we shall both feel happier over it. I confess I *do* feel a little bitter when I hear the supervisor reiterate, over and over again, 'Be ingenious,' without giving us even a handful of beans to experiment with, but I don't dare not allow myself to look at it that way at all. I should be out of all harmony with my 'environments' (isn't that the last pet word?) if I did. There is another view of it which repays me a hundred times over for little sacrifices. It is this: Did you ever think how some teachers go on hating ragged edges and trying to put a finish on everything they touch outside their school work, and yet allow that to be all pulled out with ravelings, and never seem to see it? You have been in such rooms, where the unevenness made you feel all fringed out yourself. Now a teacher may be a feminine Froebelian in principle, a marvel of ingenuity, and an angel of goodness besides, yet if half the children are working with dirty slates and stubbed pencils, and with the want of pride that comes from such poor materials showing itself in an indifferent twisting about as they pretend to work, that room lacks what no amount of good method can supply,—and *that is, finish*. Nothing like uniformity and plenty of resources in these things (patting her homely bundles) to make a school-room shine, and that is why I am willing to economize a little and get them myself. However, I shouldn't like to own this willingness to the school committee, you know,—they might misinterpret it," and she went out laughing as the way station was called. Her friend

followed in a thoughtful mood, but looked like any other woman who had been "convinced against her will."

There is no room for the brief sermon even,—let me turn it into an inquiry:

Which teacher felt the most comfortable at the close of the first week of school, and which had done the most to cultivate that *subtle charm of finish* so necessary to the beauty of school work?

ELEMENTARY NATURAL SCIENCE.

FIRST PRIMARY DEPT.—SECOND YEAR: FALL TERM.

I.—Lesson on Plants.

Garden vegetables examined and described. Parts of each used for food. Roots, as of beets, onions, carrots, parsnips; tubers, as of potatoes; stalks, as of celery, rhubarb, asparagus; leaves, as of spinach, cabbage, lettuce; fruit, as of vines and fruit-trees; seeds, as of corn, wheat, etc.

These lessons are given at this season, that the real objects may be obtained for examination in *every* lesson.

Suggestions for Lessons on the Beet.

Lead the children to examine the plant carefully especially noting all peculiarities of form, coloring, etc. Then, by suggestive questions, help them to formulate their knowledge of parts and descriptions.

Question in regard to uses. Children will readily tell that the leaves are used for "greens" and the root for food. The teacher, at this point, may make the lesson interesting by telling of sugar-making from the beet-root.

A thorough teacher never loses sight of the fact that he may lead his pupils to observe, guide them in comparing, reasoning, and formulating, in fact give a perfect development lesson; yet, if he fails to follow it up with sharp drill and test, the work is, after all, but poorly done. The conservative and reproductive faculties must do their share of the work, thus making every lesson aid in the harmonious development of all the child's faculties.

WHAT THE KINDERGARTEN DOES FOR EVERY CHILD.—It furnishes an orderly method of development of the child's faculties.

It uses the child's natural desires for play and hand activity as a means of education.

It recognizes the opportunity for moral development in the child's acts, language, and behavior, too often overlooked until the opportunity for moral impression is lost.

The child is put into possession of its faculties and their use,—thus making its primary-school life easier and shorter, while habits of industry are formed that afford the basis for its future occupation, and provide for its well-being in after life.

LESSON ON THE DAISY.

BY KATE L. BROWN.

It was June time, bright, fragrant, and suggestive of all the poet's fancies. The children had been bringing flowers, mosses, and pebbles to school, and the universal cry was, "Hasn't this posy a story? Oh, do tell a new story about the buttercup!" The little rogues! they thought Miss Hosmer a story-mill, able to grind out indefinitely at their demands. The daisies were a great delight. The children were never weary of making "old women" of them. Perhaps this gave Miss Hosmer an idea.

One morning after the number slates had been examined, and the children were somewhat weary, their teacher said: "I have a new song for you which I think you will like very much."

How the eyes began to sparkle and the round faces dimple! A new song meant a good time. "Who do you think helped me make the song? It was this little friend of ours;" and Miss Hosmer held up a large daisy before the children. "You all like daisies, but you are fond of making something of them. What is it?"

"Oh! old women,—old mothers," cried several of the children.

"Who can tell me how to make an 'old woman'?"

Janie thought she could. "You cut off half of each petal all the way round, to look like a cap border. Oh, you leave two without being cut, to be the strings with long ends where the cap is tied. Then you make eyes, nose, and mouth on the yellow centre with pen and ink."

"She hasn't told all," said Jamie, very earnestly. "You must make spectacles 'round the eyes, and then it will look just like a funny old woman."

"I never saw an old woman with a yellow face," said Maude. "I have," breaks in Edith: "it was either a negro,—not a truly one, but a little of one, or a Chinese."

Here the children all laugh at Edith's idea of a mulatto.

"You have described the 'old woman' very nicely," said the teacher. "But I have something else to show you. What is this?"

"Why, it's a daisy bud."

"How does it look unlike the daisy?"

"It has its little petals all folded together. I should think it were going to sleep."

"What can we call the big daisy?"

"I think it might be grandma, and the bud might be the baby," said Nell.

"That would do nicely, but the daisies didn't tell me just that. What do we call the person who is hired to take care of baby?"

"Oh! nurse! nurse!" shouted the children.

"Roger's nurse wears a cap, too," said Alfred, "but she isn't an old woman, she's young and pretty."

"Yes, I think 'nurse' would be the best thing for the daisy to represent. Now let me tell you my story. One warm day, as I was going home from school, I passed by a meadow just full of daisies. The wind was passing through them, and they were nodding,—nodding. It fairly made me sleepy to look at them.

"It was so warm, I thought I'd sit down in the shade. Well, I kept looking and the daisies kept nodding. I think I must have gone to sleep and had a little dream, for something happened that surely never had happened before. As I looked at the daisies I saw that they were all old women nurses with frilled caps on. And each nurse had in her lap a wee daisy baby, all wrapped up in its snowy blanket.

"The babies were fast asleep. The breeze was singing a lullaby to them. I tried to catch the words, but as the bumble-bees were trying to help him out, I could hear a 'bum-m-m bum-m-m.' The nurses were sleepy, too, but I heard them talking together. This is what they said :

"What good babies! never cry; oh, no. We never have to scold.' And they had that over and over again. They kept nodding and nodding in such a sleepy, half-ridiculous fashion I had to laugh. When suddenly all the old women vanished. I saw only a field of daisies nodding and swaying in the breezes. I rubbed my eyes! where had the nurses gone! Had I been asleep?

"After I went home I couldn't help thinking of my dream. So I wrote first a little poem and then set it to music. I will say the poem to you, and to-morrow I will sing it."

The children were interested and excited, as their flushed cheeks and sparkling eyes showed. Miss Hosmer had them march a little, then they were ready for the poem. She stood before them, holding the daisies and looking straight into their children's eyes. Every eye met hers. This was the poem :

DAISY NURSES.

The daisies white are nursery maids,
With frills upon their caps;
And daisy buds are little babes
They tend upon their laps.
Sing "Heigh-ho!" while the wind sweeps low,
Both nurses and babies are nodding,—just so.

The daisy babies never cry,
The nurses never scold;
They never crush the dainty frills,
About their cheeks of gold.
But prim and white, in gay sunlight,
They're nid-nid nodding! oh, pretty sight!

The daisies love the golden sun
Up in the clear blue sky;
He gazes kindly down at them,
And winks his jolly eye,
While soft and slow, all in a row,
Both nurses and babies are nodding,—just so.

The children were delighted with the poem, and wanted it again and again. Miss Hosmer repeated it several times very patiently. The next day the children reproduced in their own language what the teacher told them. They also made stories of their own, and tried to illustrate them with drawings of daisies. Some of them were very good, but I'm sorry to say that Bobby Jones drew a pipe projecting from the mouth of each one of his daisy nurses. The children laughed, but Miss Hosmer looked so sober that Bobby felt ashamed and quickly erased them. It did not take long for the pupils to learn the words, nodding their own bright heads very prettily in the refrain. They grew impatient for the music, so at last their teacher sang it for them. Then she taught it line by line, the pupils imitating her, until the melody was learned.

As she gave them a good model, and took great pains to secure sweet, pure, soft tones, the results were quite satisfactory. The children were full of eager interest. Their imagination had been kindled. They were for the time being the "Daisy Nurses" themselves. So their singing was pleasantly expressive and animated.

"But this takes a good deal of time. Does it pay to take such pains with a mere fanciful little song?" you ask.

Miss Hosmer thought it did. She was a thoughtful, far seeing teacher. To her, no amount of judicious training and cultivation of the garden of child-nature was in vain. She had great faith in all the silent, refining forces of education. To see those little minds and souls opening and developing their powers day by day, was confirmation enough for her that she was working in the right direction. She knew that a child's nature is like a garden that there must be constant planting, pulling up of weeds, and training of the weak and tender vines. She knew also that all the sunlight and dew of God's world must not be shut out, but taken in and cherished.

You would not find the perfect working-out of methods in reading, writing, or numbers in her room, perhaps, although the best methods were always considered. But you would see that teacher, children, parents, and superintendent were of one mind and worked together. And the best results never fail to follow such efforts.

"I have seen

A curious child, who dwelt upon a tract
Of inland ground, applying to his ear
The convolutions of a smooth-lipp'd shell,
To which in silence hushed, his very soul
Listening intently: and his countenance soon
Brightened with joy; for murmuring from within
Were heard sonorous cadences, whereby,
To his belief, the monitor expressed
Mysterious union with its nature sea.
Even such a shell the universe itself
Is to the ear of Faith."

—Wordsworth.

The Kindergarten, AND THE NEW EDUCATION.

All communications for this department should be sent to W. N. HAILMANN, La Porte, Ind.

I have still on hand four hundred copies of Dr. Seguin's celebrated *Report on Education*, which I will sell for the benefit of the Froebel Institute of North America, at 50 cents per copy. The book was originally sold for one dollar. It is a rich storehouse of new and fresh ideas on education. The proceeds of the sale go to the publication fund of the Froebel Institute of North America.

W. N. HAILMANN, La Porte, Ind.

All who desire to become members of the Froebel Institute of North America will please send the annual fee of \$1.00 to the treasurer, B. B. Huntoon, Supt. Blind Asylum, Louisville, Ky., or to the president, W. N. Hailmann, La Porte, Ind. Members are entitled to one copy of the Proceedings of the Madison meeting, a volume of about 200 pages, and will receive as a premium a copy of Seguin's celebrated *Report on Education*, donated for this purpose to the Froebel Institute.

THIRD ANNUAL MEETING OF THE FROEBEL INSTITUTE OF NORTH AMERICA.

In spite of a severe storm about fifty persons were present when the meeting was called to order on the morning of July 14, at the High School building, Saratoga. Mrs. E. D. Worden was appointed secretary for the meeting. Mr. W. N. Hailmann read his annual report, which we print below. He reported a membership of 112 for the past year, an income of \$172.50, and an expenditure of \$194.73. Subsequently he gave a full account of the kindergarten exhibits at New Orleans.

Reports of work done during the year, by Mrs. Riddle of Salina, Indian Territory, and by Miss Angelina Brooks of New Haven, Conn., were read by the chair. Additional reports of work were made during the forenoon and afternoon sessions by Mrs. E. D. Worden, of Cincinnati; by Prof. L. W. Mason, of the progress of the kindergarten in Japan; by Prest. Irvin Shepard, of the pioneer work done by the Winona (Minn.) Normal School during the past five years; by Mrs. E. P. Bond, of Florence, Mass.; by Mrs. E. A. Blaker, of Indianapolis, Ind.; Miss Amy B. Fiske, of Montpelier, Vt.; Miss Ruth Burritt, of Philadelphia, Pa.; Supt. I. N. Mitchell, of Grand Rapids, Mich.; Hon. John Hitz, of Washington, D. C.; Mrs. M. C. Still, of Syracuse, N. Y.; and Miss Laliah B. Pingree, of Boston, Mass. Mr. W. N. Hailmann supplemented these reports with accounts of the extensive charity work done in Chicago, the growth of the public kindergarten work in Milwaukee, the remarkable work of Miss Beebe and Mr. Huntoon, and of Mrs. Hailmann's and his own work at LaPorte, Ind.

A series of resolutions on the necessity of preparing young people for the duties of fatherhood and motherhood, sent by Miss Emma Marwedel, of San Francisco, Cal., were read and approved.

The chair was authorized to appoint a committee to devise ways and means for the financial needs of the Institute, another to report on the status of training classes, and a third to gather reliable statistics concerning kindergarten work in the United States.

Mrs. E. P. Bond, of Florence, Mass., was requested to furnish a concise statement of the Florence work for publication and diffusion by the Institute, and the executive committee of the Institute was empowered to publish similar tracts from other sources.

The following officers were elected for the ensuing year: *President*—W. N. Hailmann, La Porte, Ind. *Secretary*—Mrs. E. A. Blaker, Indianapolis, Ind. *Treasurer*—John

Hitz, Washington, D. C. *Advisory Board*—J. W. Dickinson, Massachusetts; C. C. Rounds, New Hampshire; Henry Barnard, Connecticut; F. W. Parker, Illinois; G. Stanley Hall, Maryland; James MacAlister, Pennsylvania; Miss Amy B. Fiske, Vermont; Mrs. C. M. N. Alden, Rhode Island; Mrs. Eudora Hailmann, Indiana; Miss J. L. Jones, Wisconsin; Mrs. Kate S. Wiggin, California; David Howell, Michigan; Miss Willette Allen, Ohio; Mrs. L. B. Collins, Iowa; Miss Eleanor Beebe, Kentucky; George L. Farnham, Nebraska; J. G. Ryals, Jr., Alabama; Miss Susan Blow, Missouri; J. S. Cowden, Florida; Miss M. L. Van Wagenen, New York; Irwin Shepard, Minnesota; Mrs. E. D. Worden, Ohio; Ulric Bettison, Louisiana; Miss Emma Whitney, Dakota Territory; Miss E. S. Dickey, Utah Territory; Mrs. E. P. Riddell, Indian Territory; Mrs. A. B. Ogden, District of Columbia.

The chair appointed the following standing committees: *On Ways and Means*—John Hitz, District of Columbia; A. B. Leckenby, New York; Mrs. Kate S. Wiggin, California.

On Training Schools—Mrs. E. P. Bond, Massachusetts; Miss Eleanor Beebe, Kentucky; Mrs. A. B. Cooper, California.

On Statistics—Irwin Shepard, Minnesota; A. B. Leckenby, New York; Miss Emma Marwedel, California.

It is hoped that a full report of the meeting will be published. For this purpose members are earnestly requested to send in the annual fees to W. N. Hailmann, La Porte, Ind. All new members, and all old ones who have not yet received a copy of the work, may claim a copy of *Seguin's Report on Education* on payment of the membership fee.

MEETING OF THE KINDERGARTEN DEPT. OF THE NATIONAL EDUCATIONAL ASSOC.

This department held two meetings at Saratoga Springs, on the afternoons of July 15 and 16. The meetings were remarkably well attended. Mrs. E. D. Worden acted as secretary. In his address the president formulated the purpose of this department, created last year. He found this chiefly in efforts to test and sift kindergarten principles and methods, and to devise ways for their application in school. He surveyed the means for accomplishing this purpose, and mapped out in a general way a plan of operations. He found many difficulties in the way. It would not be enough, he said, to examine into the status of kindergarten and school, and to gear these two wheels into each other. There is much to warn us against such narrowness in the condition of kindergartens that work only for the moment, and do not look beyond the short span of child-life with which they have to deal; as well as in the failures of many primary schools that have insulted Froebel's memory, and vitiated their own work by the introduction of some kindergarten occupations as "busy work." Putting on a grin of kindness does not make us lovers of children, neither does random play with sticks and straws transform the school into a paradise of childhood.

Mrs. Elizabeth P. Bond, of Florence, Mass., read an instructive paper, full of deep enthusiasm, and deeper insight, on "The Kindergarten in the Mother's Work." In the first part of her paper she spoke of the scope of the mother's all the rest are ignorant, the scantiest knowledge makes

work, viewing her successively as a creator, perserver, and guide. In the second part, she showed in interesting detail the help which the kindergarten gives to the mother in her work with the children, as well as to the mother herself. She supplemented this by presenting a number of incidents from actual kindergarten work in illustrations of the great power of the kindergarten in producing in the children self-helpfulness, gentleness, and mutual good will; and by reading a number of answers sent to her by many mothers to whom she had addressed letters of inquiry concerning the good the kindergarten had done to their children. The discussion elicited many remarks of hearty approval, and even after adjournment the members lingered for a long time in earnest groups discussing the thoughts suggested by Mrs. Bond's beautiful paper.

Dr. J. W. Dickinson's paper was read by Professor Boyden of Massachusetts. It treated "The Relations of the Kindergarten to the Primary School." It contained a scholarly presentation of the great advantages of the kindergarten training in child-culture, showing how it gives them facility in observation and in the use of language, and a fondness for the thoughtful handling of objects; how it fosters a tendency to symmetrical development, and occasions those simple ideas of things that are the elements of all future knowledge; how it directs and guides the first spontaneous activities of the child toward the formation of right habits, and gives power of self-control. It would be well, he said, if the spirit of the kindergarten were introduced into all primary instruction. The kindergarten should be made a universal institution. Every child, either at home or in an organized class, should from his early years be directed in his spontaneous activity. If the child can be started off from the first in the race of life in a way that will coöperate with nature in producing natural results, the primary school will not be burdened with preparing him to begin his public-school work.

The paper then discussed the obstacles in the way, which he found chiefly in the unwillingness of communities to bear the additional expense involved, in the fact that children at the kindergarten age are excluded from the public-school system, in the lack of thoroughly-prepared kindergartners, and in the general indifference to the early education of children. The paper concluded with an ideal sketch of the primary school imbued with kindergarten principles.

Mrs. Eudora Hailmann then read a paper on "Some Essentials of the Kindergarten." The features she selected for consideration were "the thoughtful regard for the time element in growth, the reverent use of music, and a trustful, simple spirit of oneness between the child and the kindergartner." While elucidating the first of these points, she criticised a "not unfrequent, nervous, sub-conscious impatience among us to make our children smart and showy, at the expense of thoroughness, breadth of vision, intellectual power, and modesty." "Some kindergartners," she added, "make the impression that children and teacher are in a chronic state of dress-parade."

Of music, she said that, more than any other influence, it contributes to the up-lifting of the emotions. She criticised the incongruous fitting of the innocent words of childhood in school songs to the repulsive melodies of street songs, and made an earnest plea for children's songs in which the music is in harmony with the words. In conclusion, she gave a lucid picture, with many illustrations of that "simple

trustful spirit of oneness between children and teachers which may transform even an old-fashioned primary school into a paradise of childhood, and whose absence renders the most elaborate kindergarten an illusion and a snare." She showed that this spirit is at the very root of the spiritual and religious phases of our being, and that all educational systems which do not contemplate its cultivation are deficient at the very core.

The papers were discussed by Miss Dickey, Professor Boyden, Mrs. Seamen, Mrs. Alden, Dr. Mayo, Mrs. Bond, and others.

The following officers were elected for the ensuing year: *President*—W. N. Hailmann. *Vice President*—J. W. Dickinson. *Secretary*—Miss S. A. Van Note.

All the addresses will appear in full in the proceedings of the National Educational Association.

OPENING REMARKS OF PREST. W. N. HAILMANN, AT THE THIRD ANNUAL MEETING OF THE FROEBEL INSTITUTE OF NORTH AMERICA.

We open our third annual meeting under novel circumstances. Heretofore, the Froebel Institute and its predecessor, the American Froebel Union, had little organized help from the educational associations; but last year, at Madison, the National Educational Association joined us by the establishment of a Kindergarten Department among its members. This step will greatly relieve us in our work and simplify our duties.

Naturally the Kindergarten Department of the N. E. A. will give its attention largely to the introduction of kindergarten principles and methods in ordinary school work; to the establishment and observation of kindergartens in connection with public schools in states that admit children to school privileges at the age of four and, perhaps, of five years; and,—let us hope,—to the promotion of legislation in other states to extend the lower limits of school age.

This step on the part of the National Educational Association thus sets the Froebel Institute free to devote its energies wholly to the diffusion of proper kindergarten ideas among parents and the people at large, and to encourage and aid the establishment of kindergartens in localities where they may not exist. Such relief was quite necessary to the success of the Institute, inasmuch as the growth of the kindergarten idea, and its increasing popularity, had begun to make it quite difficult for our small body of workers to meet all demands upon our energies.

Our old problems are still before us unsolved, and new ones are arising daily. Among the former I would bring to your attention again the question of training-schools, the work of interesting and informing parents concerning the value of kindergarten principles and methods in early child-training, and the various questions clustering around charity work by the kindergartners.

Training schools for kindergartners have become quite numerous, and many of them, I am told, are quite inadequately prepared to do their work efficiently. Persons of very scanty attainments in psychology and pedagogics, with a very superficial knowledge of Froebel's thoughts, and very limited insight into the gifts and occupations, are said to be engaged in training kindergartners. Of course, where

prophets. Yet there is mischief in this state of affairs, and it seems that the Froebel Institute should, at least, formulate the minimum of requirement for a passible training-school.

Concerning the work of diffusing information about the kindergarten, Mr. John Hitz, of Washington, will bring definite proposals before you, which, I trust, will contribute much to the solution of this difficult problem. Concerning charity kindergartens, it would be well to create a committee whose duty it should be collect data about this noble work, and to determine to what extent it is admissible to modify the kindergarten to suit the wants of the little children who came under the influence of charity work.

Among new problems, I would direct your attention to some facts and fears that have lately caused many of our friends new anxiety. There are in many places unmistakable signs that the monster "cram" is making sad inroads upon kindergarten work. Complaints are frequent that, here or there, the kindergartner disregards the laws of growth, and stuffs her children with "cute" tricks and pretty or high-sounding words, sacrificing the child to the subject or, rather, fragment of instruction under consideration. This is particularly apparent in the treatment of songs and games, which seem to be taught so often for their own sake, and comparatively quite rarely for the children's sake.

I have little doubt that these evils have their root, not so much in a misapprehension of Froebel's thought, nor in a want of appreciation of its truth and value, but rather in the perversity of our own natures, warped by generations of schoolish bringing up in home and school. In many cases where kindergartens have been established in connection with schools, the dogmatic spirit of the latter seems to have choked up all the springs of fresh and joyous life in the former. I earnestly recommend that measures be taken by the Institute to reveal these faults clearly to us, and to suggest means for their correction and mitigation.

Much good, too, might be done by better modes for securing statistics of the kindergarten. At present the Bureau of Education is our only source for information on this score, and this bureau is necessarily and wholly at the mercy of the informants concerning the reliability and completeness of its information. It has no means and, perhaps, no desire to distinguish among kindergartens, the various categories to which they belong, and mingles in strange confusion the true kindergarten with its spurious imitations, the day-nursery, the infant school, and the primary school, that has only the name to introduce it to this company. It seems to me that we need a statistical committee which should place itself in communication with friends in all sections of the country, and carefully sift and classify the information it may obtain. I believe that the mere presentation of facts which such a committee might present in convenient statistical dress, would do vastly more in one year to free the wheat from the chaff than several years of doleful or indignant controversy and complaint at our meetings.

Permit me also to direct your attention to our need of funds. My financial report will show you that the Institute is now in debt, and, therefore, ill prepared to push its work, which involves constant expense. Ways might be found to establish in different localities, agencies for the purpose of soliciting memberships or other contributions. In some manner this work might be united with the distribution of

literature. Of *Seguin's Report* we have still about three hundred and fifty copies on hand: the publishers of *Early Child Culture*, and of my tracts, would furnish us their publications at a liberal discount, and I have little doubt that favorable arrangements might be made with Bradley, Steiger, Holbrook, Van Antwerp, Bragg & Co., and others, by which we would be enabled to furnish literature to our members at a profit to them and to the Institute. Something must be done in this direction, if the Institute means to live and justify its existence.

KINDERGARTEN ECHOES.

— Mrs. Quincy A. Shaw now supports at Boston twenty-two free kindergartens, with forty-two trained teachers, and twelve hundred children in attendance.

— The Free Kindergarten Association of Cincinnati conducts four kindergartens,—two in the forenoon, and two in the afternoon. The total enrollment of children last year was 140, with an average attendance of 130. There are, besides, two kindergartens connected with charitable institutions and seven private kindergartens.

— At Syracuse, N. Y., Mrs. M. C. Still instructs a number of benevolent ladies, interested in the day nursery, in the games and some of the simpler occupations of the kindergarten, and seeks to acquaint them with the spirit and aims of Froebel. The ladies, so taught, relieve each other in the day nursery in efforts to guide the lives of the little ones, with results equally salutary to the children and to themselves.

— New Haven, Ct., has kindergartens in two of the public schools. A free kindergarten, supported by benevolent ladies, and conducted by Miss Angeline Brooks, takes care of fifty poor children. Concerning the influence of this free kindergarten the principal of an adjoining public school recently said: "The kindergarten is making over the neighborhood, the homes are more cleanly, and the refining influence of the work is plainly seen in the older children who come from them to my school."

— "The child is born into an infinite school, takes lessons from every power in nature. To awaken and develop this power is to put the child in harmony with God. This is the highest motive. Such an awakening gives power of will, affection, and thought; power to judge, reason, and generalize; power to select and use the best means to govern himself, and to lead others; a perfect moral environment is thus created."—*Clara Conway*.

— The Committee on Resolutions of the National Educational Association, at the Saratoga meeting, reported the following resolution which was unanimously adopted:

"In view of the recognized value of kindergarten education in training the sensibilities and the will, and in developing self activity, it is

Resolved, That we trust the time is near at hand when the true principles of the kindergarten will guide all elementary training, and when public sentiment and legislative enactment will incorporate the kindergarten into our public school system."

— The Cincinnati kindergartners have formed themselves into a "Froebel Society," whose objects are "to represent the Froebelian principles and methods of kindergarten training in this city, to conserve the best standard in the

theory and practice of kindergarten work, and hence, to dis-
countenance all unqualified kindergartners; to elevate the
standard of work in our local schools, so as to challenge the
respect and approval of the best representatives of the Froe-
bel system here and elsewhere; to place the society in co-
operative sympathy with other 'Froebel Societies,' and in-
stitutions by interchange of kindergarten literature, such as
reports, pamphlets, lectures, discussions, and correspond-
ence; to stimulate, inspire, and encourage individual mem-
bers of the kindergarten profession, especially the younger
ones, and to aid them cheerfully in surmounting difficulties
that must present themselves to every sincere worker in be-
half of the profound and far-reaching principles of the *New
Education*; to discourage routinism and conventional nar-
rowness, to encourage individuality and freedom in discus-
sion of the principles and details of the theory and practice
of education; to stimulate inquiry into and discourses upon
the philosophy of the teachings of Froebel, however simple
these efforts may be, so their direct aim be truth and the
direct good of the kindergarten cause; finally, to verify the
great fundamental truth, *In union is strength.*"

AMERICAN TEACHERS' BANDS OF MERCY



Every teacher who obtains twenty signatures to this pledge,—
"I will TRY to be kind to all HARMLESS living creatures, and try to
protect them from cruel usage," and sends to Geo. T. Angell, Esq.,
President of Parent Band, 96 Tremont street, Boston, name of
"Band" and its president, saying it is a branch of American
Teachers' Band, will receive without cost,—

- (1) A beautiful metallic badge.
- (2) Full information what to do and how to do it.
- (3) Band of Mercy melodies.
- (4) Ten lessons on kindness to animals, with stories, etc.
- (5) *Our Dumb Animals*, monthly paper, one year

There are, August 14, 1885, 5,053 Bands in the United States,
with over 319,000 members.

491. Roseland, N. J.: *P.*, Hattie De Camp; *S.*, Daisy Braino.
492. Aberdeen, Miss.: *F. S. Dyer Band.* *P.* and *S.*, W. Willis.
493. Osman, Wis.: *P.*, James Chen-rak; *S.*, Katie Taugher.
494. Dakotah City, Neb.: *Little Workers' Band.* *P.*, Geo. Mc-
Besth; *S.*, Helen Adair.
495. Jeromesville, O.: *Philo Hall Band.* *P.*, Weldon Cole; *S.*,
Elmer Kahl.
496. Mason, Mich.: *Jno. G. Whittier Band.* *P.*, Carl Gansley;
S., Willie Waits.
497. Fresno City, Cal.: *Central Colony Band.* *P.* and *S.*, Maria
E. Laird.
498. New Orleans, La.: *Crescent Band.* *P.* and *S.*, F. I. Dart.
499. Mason, Mich.: *The Milton Band.* *P.*, Maude Vandercook;
S., Helen L. Olds.
500. Petowsky, Mich.: *Pocahontas Band.* *P.*, Cora Gibson; *S.*,
Blanche D. Curtis.
501. Hodges, S. C.: *Walnut Grove Band.* *P.* and *S.*, W. C. McGee.
502. Racine, Wis.: *Durant Band.* *P.* and *S.*, Mrs. A. R. Hinckley.
503. Minneapolis, Minn.: *P.* and *S.*, E. Garrison.
504. Portland, Ore.: *Fuiling School Band.* *P.*, M. A. Burnham;
S., Mrs. Aurora H. Todd.

505. Mt. Vernon, N. Y.: *Empire Band.* *P.*, Henry Doepel; *S.*,
Lillian E. Clark.
506. Sandusky, O.: *Golden Rule Band.* *P.* and *S.*, Mrs. M. N.
Clarke.
507. Grand Rapids, Mich.: *Fountain St. School Band.* *P.*, A.
Lowell; *S.*, Mrs. B. Vanderfield.
508. Philadelphia, Pa.: *Golden Eagle Band.* *P.* and *S.*, N. Hill.
509. Lowell, Mass.: *We'll Try Band.* *P.*, C. A. Hannaford; *S.*,
Grace P. Colby.
510. North Brookfield, Mass.: *District No. 1 School Band.* *P.* and
S., Lizzie A. Browning.
511. Lowell, Mass.: *Green Grammar School Band.*

New Orleans, La.: McDonough School:

512. *McDonough Band.* *P.*, S. Angell; *S.*, G. Tebault.
513. *Garfield Band.* *P.*, M. K. Hamblet; *S.*, Annie Conwell.
514. *Cleveland Band.* *P.*, Mrs. A. L. Miller; *S.*, J. Donovan.
515. Corning, N. Y.: *Union School Memory Band.* *P.*, Robert
Hoyt; *S.*, Sarah S. Eaton.
516. Washington, Pa.: *Cowper Band.* *P.*, Emma Frazier; *S.*,
Annie C. Ecker.
517. Fort Madison, Ia.: *Wild Clover Leaf Band.* *P.* and *S.*,
Minna A. Hoffmeister.
518. Dracut, Mass.: *No. 7 School, Earnest Band.* *P.*, Annie M.
Parker; *S.*, Leo D. Foster.
519. New Orleans, La.: *Jefferson Band.* *P.* and *S.*, A. M. Dart.
520. Pascoag, R. I.: *Laurel Hill School Band.* *P.*, Mabel Taft;
S., Everett Barnett.
521. Muskegon, Mich.: *Pillsbury No. 3 School Band.* *P.* and *S.*,
Fanny Portruess.
522. Cavetown, Md.: *P.* and *S.*, D. H. Garver.
523. Brownsville, Pa.: *Excelsior Band.* *P.*, Lewis Pritchard; *S.*,
Junius Troy.
524. Randolph, N. Y.: *Willing Worker's Band.* *P.*, Nettie E.
Moore; *S.*, Howard H. Jones.
525. Washington, Pa.: *Angell Band.* *P.* and *S.*, I. N. Freeby.
526. Annapolis, Ill.: *Muddy Creek Band.* *P.* and *S.*, J. F. Buckner.
527. New York, N. Y.: *Normal College Training Dept. Band.* *P.*,
Rosa Davidson; *S.*, Fannie Gillet.
528. Sanford's Corner, N. Y.: *P.* and *S.*, Alice Northrope.
529. Prairie du Chien, Wis.: *Prairie Band.* *P.*, Carrie Bertholdt;
S., Corda Blancher.
530. So. Georgetown Mass.: *P.*, R. W. Perkins; *S.*, A. Pierson.
531. Washington, Pa.: *Goodheart Band.* *P.* and *S.*, A. M. Ruple.
532. Washington, Pa.: *I'll Try Band.* *P.* and *S.*, Sadie E. Gantz.
533. Bryn Mawr, Pa.: *Angell Band.* *P.*, H. Gyger; *S.*, C. Butler.
534. Grand Rapids, Mich.: *Fountain St. School No. 2 Band.* *P.*
and *S.*, C. E. Burch.
535. Morristown, N. J.: *Friend of the Helpless Band.* *P.*, Seward
Erdman; *S.*, Cora B. Davis.
536. Tipton, Kas.: *Prairie Flower Band.* *P.*, Rozella D. Beard;
S., Chas. Brinkman.
537. Washington, Pa.: *Catharine Smithies Band.* *P.* and *S.*,
Janetta B. Hart.

Jacksonville, Fla.: Grammar Schools:

538. *Star and Crescent Band.* *P.* and *S.*, Mamie Tucker.
539. *Angell Band.* *P.* and *S.*, Mrs. C. M. McIver.
540. *Rose Bud Band.* *P.* and *S.*, L. Baker.
541. *Excelsior Band.* *P.* and *S.*, L. M. Jones.
542. *Loving Watchers' Band.* *P.* and *S.*, H. E. Harman.
543. *Pansies Band.* *P.* and *S.*, L. Kennedy.
544. *Dewdrops Band.* *P.* and *S.*, M. H. Hatter.
545. *Peacemaker's Band.* *P.* and *S.*, A. A. Washington.
546. Victor, N. Y.: *Ontario Wide Awake Band.* *P.*, Homer Sny-
der; *S.*, Marion J. Snyder.
547. Washington, Pa.: *True Band.* *P.* and *S.*, Kate A. Murphy.
548. Washington, Pa.: *Silver Star Band.* *P.* and *S.*, F. E. Dougan.
549. Washington, Pa.: *Little Learners Band.* *P.* and *S.*, Anna
M. Parker.
550. Tyson, Vt.: *P.* and *S.*, Maggie King.
551. Washington, Pa.: *Queen's Band.* *P.*, Queen M. Ross; *S.*,
Charlie Guinn.
552. Sherborn, Mass.: *Happy Workers Band.* *P.* and *S.*, Clara
A. Sylvester.
553. Auburn, N. Y.: *Silver Star Band.* *P.*, M. Ella Porter; *S.*,
Nella W. Brown.
554. East Killingly, Conn.: *The Loving Kindness Band.* *P.* and
S., Mrs. H. C. Columbus.
555. Ellendale, Dak.: *Prairie Band.* *P.*, Michael Keough; *S.*,
Clara Gilbertson.
556. Tripoli, Ia.: *Lincoln School Band.* *P.*, E. Sweet; *S.*, E. Cooke.
557. Wallacebury, Ark.: *P.* and *S.*, Robert E. Wood.
558. Wood, West Va.: *P.* and *S.*, S. C. Cavendish.

A CHILD'S THOUGHT.

BY MISS H. M.

What wonderful fancies you find in the bowers,
Of four year-old hearts, truly gems among flowers.
And they'll ask you such questions with wondering eyes,
You must answer them something to hide your surprise.

I remember one day, 'mid the mountains of "Blue,"
In Virginia's valley, at quiet Lake View,
A sweet little pet was adorning my floor
With a carpet of roses she'd gathered out-door;

When all of a sudden her bright eyes were beaming
With lustre from Heaven, so earnest their gleaming,
"Who made the red roses, please Lady tell I,"
I pointed my finger toward the blue sky;

And with hand on her brow, "Who made you, Iola dear?
The same God has made all the beautiful here,—
The trees, and the grass, and the sweet-scented flowers,
And He gives them their drink by sending the showers."

She paused for a moment, her face filled with doubt,
And then so decided her answer came out,
"God *might* make the roses,—they have pretty smell,
But he didn't put the *prickers* on, I know very well."

HORSFORD'S ACID PHOSPHATE.

WELL PLEASED.

Dr. C. Roberts, Winchester, Ill., says: "I have used it with entire satisfaction in cases of debility from age or overwork, and in inebriates and dyspeptics, and am well pleased with its effects."

NOTES AND QUERIES.

Questions and answers for the Notes and Queries should reach us by the 1st of each month to insure publication in the following number.

We desire that our patrons should consider themselves at liberty to take part in the discussions of the Notes and Queries. You are invited to send in such questions as you desire to have answered; we also solicit answers to questions given.

ALL COMMUNICATIONS FOR THIS DEPARTMENT MUST BE SENT TO THE EDITOR, 16 HAWLEY STREET, BOSTON, MASS.

ANSWERS TO QUERIES.

HISTORY.

1. What general arose from a sick-bed to lead his troops into a battle in which he was killed? HATTIE A. MAINE.

General Wolfe arose from his sick-bed to lead his troops into an engagement to capture Quebec, in which he was mortally wounded. E. N. S., *Melrose, Mass.*

Credit to Maggie Bedle, S. Olivia Smith, T. J. Stout, Alice A. Tufts.

2. Name the rebellions which have occurred in our history. ADA D. THOMPSON.

Bacon's, Clayborn's, Shay's, Dorr's, Whiskey Insurrection, and the Civil War. MAGGIE BEDLE, *Keyport, N. Y.*

3. Who was the first king that sat on the English throne? J. J. CAMERON.

Ecgbert was the first king who sat upon the English throne, and the most celebrated of the Anglo-Saxon kings before Alfred. He was a son of Alcmund and a descendant of the house of Cerdic. In him ambition and prudence, bravery, talent, and courtesy are so blended as to make him a monarch worthy to be styled the first king of England. LAURA DUNBAR, *Wayne, Pa.*

Credit to F. A. Rudolph.

4. How many stars should the American flag have? Why? J. M. N.

"CLASSICS FOR CHILDREN."

"This series of books ought to be in each school in the land."—WM. T. HARRIS, PH.D.

At an executive session of

THE WISCONSIN
TEACHERS' ASSOCIATION

a committee was appointed "to prepare a list of books and papers useful for supplementary reading arranged in three groups according to the advancing capacity of the child." The committee's report

RECOMMENDS

among others, the following:

Second Reader Grade:

TURNER'S STORIES FOR YOUNG CHILDREN, \$.20

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SWISS FAMILY ROBINSON,	- - -	.40
KINGSLEY'S WATER BABIES,	- - -	.85
ROBINSON CRUSOE,	- - -	.35
KINGSLEY'S GREEK HEROES,	- - -	.85
STORIES OF THE OLD WORLD,	- - -	.40
TALES OF A GRANDFATHER,	- - -	.40

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Fourth Reader Grade:

LADY OF THE LAKE,	- - - -	\$.35
QUENTIN DURWARD,	- - - -	.40
IRVING'S SKETCH BOOK,	- - - -	.25

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Prices, in boards, as above; in cloth, 10 or 15 cents higher.

Also, now ready:

LAMB'S TALES FROM SHAKESPEARE.	.40
STICKNEY'S PRIMER.	.20
TURNER'S PRIMER AND FIRST READER.	.20

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6. What change would make the temperate zone 50° wide?
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1. What battle in the history of the United States was fought and won without a commander?
2. What American novel has probably been most read?
3. What great man was born in Europe, died in Asia, and buried in Africa?
4. What gave the name of *Iceland*?

5. When was the first Sunday-school established in this country?
6. What European monarch was called the Snow King?
7. What title did William III., Prince of Orange, have in his own right to the English crown?
8. Where is the real Hub,—that is, the center of the country? Where is the center of population?
9. Is the law requiring people to attend church on Sunday really Puritanic,—that is, of Puritan origin?
10. When, where, and by whom was Decoration Day first observed? Why was May 30th chosen as the day?
11. What is the Tiara?
12. When did a fog save an army?
13. What is the Congressional deadlock?
14. What president had not voted for forty years?
15. Give a short account of the author of *Festus*, and the most noted quotation from that work.
16. When was trigonometry first cultivated, by whom, and where?
17. What German emperor celebrated his own funeral rites, and how soon afterward did he die?
18. What flowers constitute the botanical clock?
19. When was the word "Democratic" first applied to a political party?
20. What was the currency once known as "sharp-shins," and where was it used?

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ning some lines written by a friend. "Oh," said another, "it doesn't mean anything. It is poetry."

— In a language lesson in one of the Chicago public schools, the teacher said, "Deceitful means false." A boy in the class gave as an example of the use of that word, "My ma has deceitful teeth."

— "Now, Charlie," said a teacher to a boy whom he had been punishing for the first time, "I hope this has taught you a lesson." "Yes," said the boy, "it has taught me it is better to give than to receive."

— "Is it possible, Miss, that you do not know the names of some of your best friends?" inquired a gentleman of a lady. "Certainly," she replied; "I don't even know what my own will be a year from now."

— Why doth the little school-boy swear softly all the way home when he has been kept after school? Because "too much learning hath made him mad."

— Minister: "My dear brethren, in this warm, oppressive weather, I can excuse a little drowsiness during my sermon, but I do wish you would try to keep awake while the collection is being taken up."

— Pat came into camp with a goose under his arm. "Didn't you know it was against orders to forage on the enemy? Explain yourself," said the sergeant. "Yes," said Pat, "but the goose hissed at the American flag, and I tuck him a prisoner of war."

— Professor: "Why does a duck put his head under water?" Pupil: "For divers reasons." Professor: "Why does he go on land?" Pupil: "For sundry reasons." Professor: "Next. You may tell us why a duck puts his head under water." Second

pupil: "To liquidate his bill." Professor: "And why does he go on land?" Second pupil: "To make a run on the bank."

— The other Sunday a popular preacher, in enumerating the things not to be found in heaven, said, "There is no darkness there, no clouds, no sorrow, no sickness, no grave, no funerals, no preachers;" as the congregation smiled at this point the clergyman remarked, "that is, there is no preaching there."

— Mistress: "Who were you talking to, Jane?" Cook: "Only my eldest brother, mum. He's,—he's on the perlice." Mistress: "Indeed! What is his name?" Cook: "John Smith, mum." Mistress: "But your name is not Smith." Cook: "No, mum; but you see he's bin married!"

— "You say there's no hope for me, doctor?" "None at all." "No possible chance?" "None; and I would advise you to settle up your business and relieve your mind." "Oh, my mind is all right, doctor. I owe about three times as much as I am worth."

— Teacher: "So you can't do a simple sum in arithmetic. Now, let me explain to you. Suppose eight of you have together forty-eight apples, thirty-two peaches, and sixteen melons, what will each one of you get?" "Cholera morbus," replied Johnnie Fizzletop, who is addicted to that malady.— *Texas Siftings*.

— "Say, mister, do you want your valise carried?" asked an urchin, running after a man going down Fourth Avenue with a valise in his hand. "No, I don't," answered the man with a snarl. "I'll carry it to the depot for a dime," persisted the boy. "I don't want it carried, I tell you," said the man, hurrying along. "Don't you?" "No, I don't." "Well, mister, what the dickens are you carrying it for? Why don't you set it down?"

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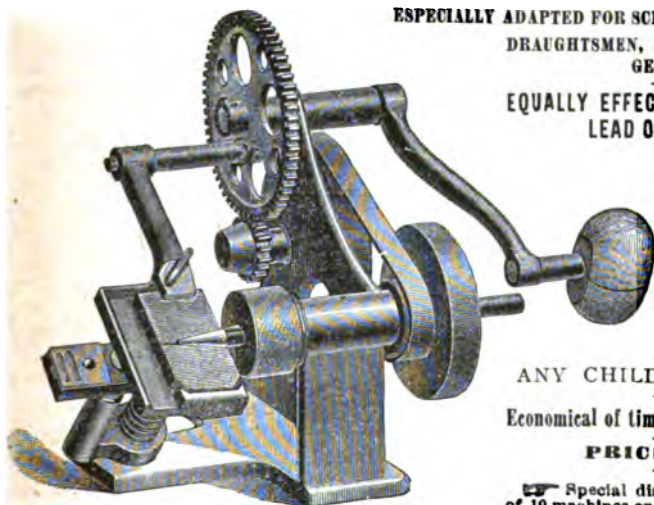
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EDITORIAL NOTES.

ESTIMATE the average home influence and knowledge of your pupils, and utilize it or supplement it for the advantage of the child and the school.

VENTILATE! Ventilate before school! Ventilate at recess! You can teach better, pupils can study better, give better attention, recite better in good air than in poor. Vicious air is the greatest of school-room evils. Look to it that your room is thoroughly, frequently ventilated.

BE just with the child. Don't say or imply that he is stupid because he does not know all that you think he ought to know. He may be ignorant of a great many things, and yet not be a dunce. There may be many

things he does not know, and yet he may know many things that will be more serviceable to him than the things you would have him know. Give him credit for all he knows, whether it is your form of knowledge or not.

"LITERARIAN" is a new word, and a good one, coined by a contemporary to signify either a literary man or woman. There is great force in putting one word for two, especially when the word absorbed is so worn as to have lost all emphasis and attractiveness. This new word is clear and pleasant. The teacher needs to know the significance of every new word that has come too late to find a home in even the supplement of the dictionary.

LOVE for the highest type of beauty is so important an element in the enjoyment of home life, is so necessary to one who would contribute to others' enjoyment, is so closely related to securing employment, has such influence in determining wages, and the lack of it is so liable to interfere with admittance to the best society, that the teacher must train her own taste for the beautiful, must make much of the opportunities of school life to cultivate a love of beauty in her pupils.

IN advanced life people live much upon knowledge acquired in early life. So much is forgotten between the day a lesson is learned and the season of review that teachers get discouraged; but in later life many things, for the time forgotten, come back to sweeten later years. This is particularly true of the things in which the child is most interested when he learns and recites it. The teacher is building for the years after she has passed away. Her deeds are sure to live after her.

THE teacher must command the respect of the intellectual portion of the community. Her position as an educator, even though she be in the primary school, necessitates a certain degree of literary culture, a familiarity with the scholastic phrases, the pet authors, the literary gossip, the timely books. She cannot, however, take time to learn carefully all she ought to know, but she may find a wealth of fact, incident, and valuable criticism in the *Literary World*, so that by a judicious use of two hours a month she can escape the humiliation, under any circumstances, of being unpardonably ignorant of literary matters.

THE early curiosity of the child is not in things for what they do, and not so much in what they do as in how they do it. They are always in motion, and they want everything else to be. The games that attract them are the movement games. They like arithmetical exercises that are full of life and spirit, concert exercises that have momentum; they like map questions in geography, for they can exercise their eyes in curiosity hunts. They do not, as a rule, like definitions, spelling lessons, old-fashion grammar lessons, or anything of the kind. The teacher

can study along this line advantageously, and see the gain in the "moulding-board" in geography, etc.

THE teacher needs to distinguish between a passive and an active attention on the part of her pupils. Some teachers think they have the attention of the class if there is no mischief-making tendency, if every child is minding his own business, if he has his face front, his eye on the teacher; but no teacher of this age of the world who appreciates her responsibilities and privileges will be content with anything less than the most active, mentally awakened, sympathetic attention of her class to the instructor and the instruction, to the subject and the method of teaching it. It is profitable to devote much thought to securing the best of attention on the part of the class, for with it less effort by far is required to accomplish other results. Teaching without attention is largely wasted energy.

THE curiosity of childhood is oftentimes annoying to teachers as well as parents, especially during the inquisitive age, but it is the thermometer of the love of knowledge. The teacher needs to study this phase of mental life, and if she has had good psychological training she will know when and how to utilize its revelations in intensifying her instruction. When curiosity is directed into knowledge-searching channels, good scholarship results, but when it is left untrained it tends to gather information of no value; it then wastes itself in picking up facts about the private affairs of others, until it degenerates into the crime of gossip and slander. The gossipers and slanderers of society are those whose early direction of curiosity was faulty. The teacher has great social responsibilities therefore.

PERCENTAGES of ignorance of common things, as developed by Prof. G. Stanley Hall in Boston in 1883, and by J. M. Greenwood in Kansas City in 1884, have not only attracted much attention, but have quickened public interest and aroused teachers to an appreciation of the value of a knowledge of the things about them. The extent of the ignorance of Boston children of about six years old was almost beyond belief, though some of the questions were far beyond their years, and the wonder in such cases was that they knew so much about them. One-half the Boston children had no idea of a pig, while more than ninety-eight hundredths of the children of Kansas City knew. Of the Boston children, one-fifth of the group did not know what a cow or a hen was, their right hand from their left, their cheek or their elbow,—not even the source of milk; the children of Kansas City were many times better informed than those of Boston. We would like to have every teacher who reads THE AMERICAN TEACHER get the list of questions as printed in the Proceedings of the National Association of 1884, page 196, and test her pupils of five and six years of age and see what the result is.

GLIMPSES INTO THE SCHOOL-ROOM.

BY MRS. E. D. KELLOGG.

"Children in the lowest primary can write script so as to be read the first day of school." The teacher had heard this and went faithfully about it. At the end of the first day she could only look back on a chaos of children unable to know their own seats if they left them a minute, and the flowing of tears of the timid, shrinking little creatures who didn't take kindly to the transfer from nursery to educational halls, while the general want of slates and pencils made writing a practical impossibility, even if the genius of script were impatiently hovering in their midst, waiting to materialize into readable form. In the days that followed, fingers, slates, and pencils began to come together, and at the earliest moment "cat,"—the *word* cat,—appeared on the blackboard. The regulation *picture* cat,—a triumph of realistic mouse-catching by a life-size feline on a dead run for the escaping prey,—had been duly arranged for a logical background, after serving for a thrilling story that had stilled the little audience to such a death-like silence that the "talking" of the crayon must have been a cruel recall from fancy-land to the reality of a first writing lesson.

Behold, all things are now ready for the duplicate "cat" on forty slates by forty hands that never had had a lesson in pencil-holding or muscle-training. But the promised script cats refuse to appear. Two-thirds of this ordinary class looked blank and began to do the most natural thing in the world,—twist that pencil about in their awkward, pudgy fingers, and finally, after repeated efforts, make a long, straggling mark on their slates that completely absorbed their attention and filled them with admiration. A few venturesome spirits of the hopeful other third attempted to reproduce the blackboard "cat" with so much of success that the teacher, with the immense advantages of knowing the word beforehand, and a practised imagination, actually traced the ghostly outline of the desired word dancing in between the two lines. The remaining fraction of this unappreciative, illogical class of children, after attempting the letter "C," went off in pencil-scratching with more than creditable success. The teacher went home, saying to herself, "An ounce of reality is worth a ton of theory."

Persevering attempts resulted in *one* moderately well-written slate, by the brightest girl in the class, after ten days. The teacher has now commenced at the beginning, teaching these natural little folks who wouldn't develop to order to learn to use their hands and the possibilities of a slate and pencil, and hopes by Christmas to show some readable writing.

Vertical and horizontal lines had been before teacher and pupil for several days, till the teacher was posi-

tively certain that they were perfectly understood by the class, whether in window-sash or slate-frame. Still, when the pencil attempted to reproduce the simplest designs by their use, confusion ensued, and straight lines of any kind were an impossibility. She went to her desk, took out kindergarten Gift No. 8, and silently distributed the bright-colored sticks among the delighted, wondering children.

"Now give me two vertical lines," said the teacher, and the dullest pupil in the class had two parallel perpendiculars before him at once. Horizontals followed equally correct, and by dictation alone were boxes and chairs built by wee little people who had never been able to follow a direction before. One little fellow, who had seemed to be an embodiment of stolidity, seized upon those attractive invitations to activity as a duck would splash into the first water it ever saw, and astonished the teacher by such accuracy of eye-measurement and deftness of touch that her respect for the future artisan went up at once.

"Shall I ever learn to let these children learn to do their work themselves with the blessed help of attractive objects, and not try to force them into *my* way of doing things?" she thought as she gathered up the big bunch of delicate sticks, not one of which was broken or injured. Something else besides lines was taught that day, and the children were not the only learners.

TALKS ON EXPRESSION.

BY MRS. J. WENTWORTH PAYSON.

LESSON FROM THE CHILD.—OBJECT, THE CAT.

First of all, the child is attracted toward the object. The child's being is stirred; however slightly this may be, there is an access of activity where feeling is aroused. Something has come to the child from seeing the object,—an impression. *What next?* This access of activity in the child's being will seek an outgoing,—an expression. The child reaches out to the cat. *How?* With eyes fixed on the object, he walks toward the cat. *How does he walk?* Upright, with his head thrown back? No; the whole being inclines toward the object. The chest impels forward, because there is the seat of sympathy or *feeling with* something outside of the child's self. The hand goes out to touch and caress the object. *What next?* He uses endearing words as he strokes the cat's back. *What name does he use?* "Cat! Poor cat!" No; cat is too general. It shuts him out from, rather than bringing him near to, puss. "Cat" is not in the child's vernacular of feeling any more than *boy* or *man* is. Cat, man, and boy only exist for him remotely, as objects that break in from an outside circle. But in the inner circle of the child's life, the home of his being, cat becomes puss. or pussv as diminutive; kit, or kitty as diminutive,—just as *man*

is papa or Uncle Harry, and boy is Charlie or Fred, or some special somebody to the child, and not something shut out from him by a general term. He does not care for cat as a species, but for this pussy that he sees; that he reaches out to; that he strokes and caresses. So he says "pussy" or "kitty." He has now employed a mental agent, articulation. Let us now learn our lesson from the child. How does he say *poor pussy* as he strokes her back? Why this little child, this natural actor, caresses pussy with his voice just as he does with his hand. He puts sympathy into his tone; he seems to think that pussy stands in need of being loved and petted. He is overcharged with feeling because he is a little child, and right out of his heart he speaks to the soft-footed, purring creature that has set his little being in motion. He has pretty, natural slides in his voice, *because he feels what he says*.

How many variations of tone do you think a child will play on these two words, this single chord? How many on one word,—*pussy*, for instance? Listen; now hear how he says it when gurgling over with delight. How he gurgles the syllables, brimful of joy! What blessed assurance to pussy that he takes her right into his confidence,—that she is his bosom companion. Listen again; hear the question tone in his voice as he invites pussy's sweet confidence in all the little trials of pussydom. What winning persuasiveness in his tone; how his voice reaches out over all imaginable wrongs to the little creature! What tenderness is borne out in his speech; how he colors the vowel in prolonging the sound! Again, how much is suggested in his use of the initial consonant, as he reproaches pussy for some misdemeanor. The little lips are pursed up for the first letter; then the position is held; then the condensed breath is coined into protestation as he utters her name. Just how many variations does the child play on the word? Just as many as he has variations of feeling, unnumbered motions that stir his being. Well, the child has only been talking to the cat. Happily that is all; and when he can be led to reproduce nature there will be a discount on the woodeny reading of the school-room. But how about the ready recognition of words by a process of analysis? "I see the cat. Does the cat see me? Do you see the cat? Does the cat see you? Yes, I see the cat. Yes, the cat sees you." Mechanical permutations that are a deadening process to expression. All this would be admissible if we were going to teach a class of professors elementary reading. They might be able to digest these dry lessons; but the child is so fresh in its feelings, its soul is so looking out on every side of its being, that all we have to do is to give it some little chance for moving out in expression.

—"Westward the star of empire takes its way," and Estebrook's Pens go westward and to every other point of the compass.

THE LIMITS OF LANGUAGE-LESSONS.

BY S. S. PARR, DEPAUW NORMAL SCHOOL.

Abraham Lincoln, we believe, said that he always wanted to run the fingers of his understanding around a subject in the beginning, that he might have a clear idea of its limits. Language-lessons are much talked of. They are now one of the fashionable modes in education. Let us then make an attempt to define their limits.

What are the language-subjects? They are,—

1. Pronunciation—Unit, the spoken word.
2. Spelling—Unit, the written word.
3. Word-study—Unit, the spoken and written word.
4. Grammar—Unit, the sentence.
5. Rhetoric—Unit, a series of connected sentences; *i. e.*, constructed discourse.
6. Reading—Unit, a series of connected sentences; *i. e.*, interpreted discourse.

These six subjects cover the field in which language is the principal element. A complete scheme of education must provide for all of them. They form one of the hemispheres of subject-matter in education. The other hemisphere is comprised under the term "thought-subjects"; *i. e.*, those in which the thought is the principal element.

All grades of schools need to give systematic attention to pronunciation. Pupils should be drilled to speak English, and not to murder it by a dialect. The New Englander should quit his *w.utech* for *water*; the Virginian exchange his *worter* for the pure article; the Hoosier give up his *wotter* for *water*; and the extreme southerner swap his *wautth* for the Websterian *water*. An experience as institute-conductor in half a dozen States convinces the writer that little is really understood of the principles of pronunciation. Few people have ever taken the trouble to examine carefully the excellent treatises on the principles of pronunciation found in Webster and Worcester. Not one school in a thousand teaches pronunciation systematically.

Spelling is at present in the crucible, and we may look for something rational before long as the result of the fierce blow pipe analysis to which it is subjected.

Word-study has not even been systematically begun. Swinton, Reed, and others have made a stagger at starting the subject, but one would possess considerable hardihood to say that they have done anything that will be permanent. This is the most important of word-subjects, as it involves the derivation, history, and present forms of words. Some form of such study must be found appropriate for all grades above the primary school.

Grammar and reading have had a long trial. Much has been done, and much remains to be done. Few teachers, even yet, appreciate that grammar is the science of the sentence, and, as a science, should be

put over into the last years of the grammar school and into the high school. It has no business in the primary school, or in the lower years of the grammar school. A very remarkable fact in connection with grammar is this: that only one writer in a hundred has had the judgment to see that it is limited to the *science* of the sentence; and that only one in a thousand has discovered that so far only descriptive grammar has had any showing, and that historical grammar appears nowhere on the pages of a school grammar except the small grammar of Morris. The old classification of grammar into "orthography, etymology, syntax, and prosody," as found in Kirkham. Pinneo, and, we believe, Greene, and other school grammars, is about as logical as to say that human beings are men, women, and children, centaurs, and *anthropophagi*.

Rhetoric, or composition, has had some good, substantial work done in it. But no worker in this field need sit down and weep for want of something to do. Much of the achievements of the past, while good in their way, need adaptation to our practical wants. The fact that to say "composition" to a class of children scares them out of their wits, is evidence that much remains to be done.

Pronunciation and spelling are mainly provided for in connection with reading in the primary schools. Every subject taught in the primary school needs these two elements. Grammar and word-study have no place in such schools, while composition is properly restricted to dealing with those written forms that correspond to spoken forms already well known. The primary school has little to do with new forms of oral speech. Such belong to the grammar and high school. The former school has all it can do to correct and fasten those oral forms that are learned outside of school, and to teach the written forms that correspond to them. The practical appreciation of this fact will do much to simplify the problem of language-lessons for this grade of schools.

"PRIMARY FRACTIONS."

BY WM. M. GIFFIN, A. M., NEWARK, N. J.

The writer has often heard teachers say they would like very much to follow many of the suggestions which they read in the different educational papers, but that it is impossible for them to do so, as many of the articles are written by teachers of city graded schools, which have all the apparatus furnished that is necessary for such work. In this article I mean to try and give some live hints on how to teach "primary fractions," or, in other words, fractions simple enough for any primary pupil to understand. The apparatus that I am going to use is some imaginary pies, which are to be drawn on the blackboard by the teacher. She stands before the

class and tells them that she is going to draw a picture on the blackboard of something which they all like to eat; and if she wishes she may set their minds to work by having the pupils try to guess what it is, thus arousing their curiosity; and at the same time many things may come up that will afford an opportunity to teach many good points in language, if she should,—

"Seize her by the forelock, you may hold her; but, if suffered to escape, not Jupiter himself can catch her again."

An error in grammar corrected at such a time may be more lasting and beneficial than a score of rules learned by rote.

But to go back to the pie,—the teacher draws it thus:

"What are we to call this, John?"

John—A pie.

"What part of a pie, Mary?"

Mary—A whole pie.

"Yes; now look and see what I am going to do to the pie? What have I done, William?" *William*—You have divided it into halves.

"How many halves, class?"

Class—Two halves.

"Now look again, and see what I do this time." "What is it, Sarah?" *Sarah*—You have divided one of the halves into half.

"Yes; and what do we call one of these parts, Thomas?"

Thomas—One half of one-half.

"Sure enough, that is what it is; but we have a name for it,—who can tell? I see William's hand is up; what do you say, William?"

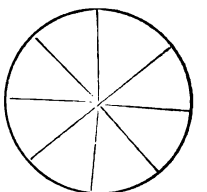
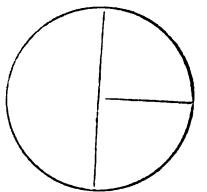
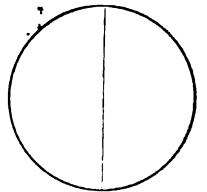
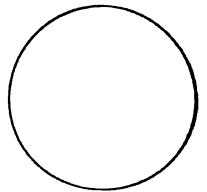
William—One fourth. "Right."

The teacher may continue to divide the pie; we will suppose she has until it looks like this,—when such questions as the following may be asked: Into how many parts is

the pie divided? If each of two boys receive $\frac{1}{4}$ of the pie, how many *pieces* will they have? If John has it all, how many eighths will he have? How many pieces? How many eighths in a whole one? Mary has one piece; what part of the pie has she? William has $\frac{3}{4}$ of the pie and John has $\frac{1}{2}$ of it; which has the greater number of pieces? How many more pieces has William than John? How many eighths in $\frac{3}{4}$ of one? How many eighths in $\frac{1}{2}$ of one? How much greater is $\frac{3}{4}$ of one than $\frac{1}{2}$ of one? etc., etc.

I have heard my vice-principal conduct an exercise like this, when there was not a child who was not thinking, and I am sure you will agree with me that it was very advantageous thinking at that.

Let me next call the attention of those of my readers



who are young teachers to the manner in which my first questions are put. Notice that the question is asked each time before the pupil is named. This, my friends, is not so by *chance*; thoughtful teachers do not teach in that way,—*i. e.*, by chance. My object in putting the questions as they are is *not to name the pupil who is to recite, before asking a question*; because if I do the rest of the class, knowing that the question is addressed only to the pupil named, will lose interest; while, if the *question is asked first*, all will give attention, not knowing who may be called on to answer it.

STUDIES IN ZOOLOGY.—(II.)

BY HERMON C. BUMPUS.

Though now restricting our attention to living bodies, the students should thoroughly understand that in so doing we do not ignore the unorganized class, but are constantly recurring to it that we may find explanations of the various functions of the living organisms. All should understand that organisms are sustained in life in obedience to physical and chemical laws which are not different from those we should have met had we followed the other class.

The real basis of life, the so-called vital conditions, we do not pretend to understand. Chemists may compound substances which agree in all perceptible ways with a given organism, but life has never been manufactured.

It might be well to here mention the hearing that this problem has on the natural sciences at large. Could life be manufactured, the question of its origin would at once be solved; the class of unorganized substances would pass into organized, and life would be the offspring of matter. Life once started, however, its continuation, in obedience to physico-chemical laws, is more easily understood.

Having thus seen what can and what cannot be expected of organized bodies, their methods of life can now be more closely examined. The teacher can very easily illustrate an organized body by presenting to the minds of the scholars a structure like a small brick building. There is, to begin with, a certain amount of material,—a pile of bricks. These, under the direction of an architect, are arranged into a definite form,—a building. The owner may, in time, see fit to build, beside this structure, a second; and finally several similar buildings may be constructed, all of which are paid for out of the income accruing from the first. In time, the original structure becomes old and worthless, and the bricks of which it was first constructed are torn apart and broken, or perhaps are used, after undergoing certain treatment, in further building or in patching up what has been of decay.

In this illustration the material represents the elements of which an organism is built up; the oversight of the architect, the exercise or the vital functions; the addition of new structures built from money accumulated by disposition of the old; the tendency of organisms to store up material and energy whereby new though similar organisms may be formed. Finally, the decay of the building and the breaking up though non-destruction of its parts, the final death of an organism and the decomposition of its parts into the original elements of which it was composed. Of course the value of such an example as has been given may be impaired by being carried to too great an extreme or by being too closely pressed. The fact that it is but an illustration should be constantly kept before the minds of all.

A break in the tedium might now be profitably made, and a brief talk on the subject of tiles introduced. Without here entering into a discussion of the elements or primary substances of which these are composed, it will appear that they, in their multiplied forms, can be made to subserve offices of most diverse functions. The bricks of the walls are but tiles. The roof may be covered and the floors paved with them. The conduits of water and of heat may be composed of sections of "drain-pipe," which are called tiles in some sections of the country. Not only may canals leading into the building be constructed of these, but avenues leading out, as the waste-water and ventilating-pipes, as well as the chimneys.

We have thus seen that a complete structure can be constructed of a properly arranged collection of one class of objects which, though they may be variously modified to perform special functions, are known by a single general name,—*tiles*. Tiles then are the *units* of which a house may be composed.

It is now that the teacher can call attention to the fact that all organized bodies are thus made up of *units*, which, though they may be as varied in their form and as diverse in their functions as are the tiles of a building, are nevertheless known by a single name,—*cells*. Out of cells we are to see that the walls of organized bodies can be built up. That the outside can be by them protected, and that the inside may be lined with them. From them conduits may be made which will run to the several portions of the body, and canals which will allow of the disposal of waste.

Let us understand further this unit of the organized world. Let it take on some form other than that of a rigid tile. We are now dealing with something that has life,—something that may exist of itself for generation after generation, or may be intimately bound up with fellows of its own character, which may or may not be its offsprings, but with which it has an interest for the common good. Our first attention will be with the independent, solitary cell; and that we may most easily understand it, let us examine one in nature. The blood-

cells, or, as they are more often called, the blood corpuscles, of a frog are of considerable size, and their parts can be readily made out with a compound microscope of ordinary magnifying power.

A frog having been captured,—in the winter season they can generally be found in the decaying leaves which are seen at the bottom of warm springs,—it may be a question how, in a merciful way, to obtain the blood. A simple method, and one, as will be seen, that gives little or no pain, is to hold the frog, or let him rest in the hand, and with a sharp pair of scissors, snip off just the tip of one of his toes. It seems just to suppose that did this inflict the slightest pain there would be a withdrawal of the foot, or at the moment there would be some struggle, but such is not the case; the animal invariably looking on with the drollest air of indifference. This bit of vivisection may be odious to some, however, and perhaps a seemingly more humane method would be to place the frog in a preserve jar, and, after pouring in half a teaspoonful of chloroform, securing the cover. In a moment's time the animal will be insensible to pain, though the reflex nervous centers of the heart may stimulate the continuance, for several hours, of the circulating functions.

A drop of blood applied in a thin coat to the center of a glass slip should be allowed to dry, or may be immediately placed under the microscope. If not too much blood has been used, the cells will be seen to be in groups or standing alone, each of an oval outline and with a granular center. The outline is preserved by a thin wall, the *sac*, which contained flowing albumen, *protoplasm*, and the irregular granular center is the *nucleus*. A diagram might be drawn on the board which would show these parts, and properly named, that each student, as he looks in the tube, can at once distinguish the several areas.

CHATS ON WAYS AND MEANS OF TEACHING.

BY ANNA B. BADLAM.

The children came back from their summer vacation somewhat browner and taller than when school closed in June, and with an airiness and sprightliness of manner suggestive of the butterfly and bird-life of freedom many of them had enjoyed. I was enabled, through changing my grade of work, to keep many of last term's pupils, whom I shall carry on into second year's work. It is a new experience, this being able to judge by personal observation what a summer has done for these same children who left me last June for a two months' rest from books, slates, and all that pertains to school life. One cannot wonder that the amount of knowledge so patiently and unceasingly given through the school-year seems, if not lost, at least so securely packed

away somewhere in some remote corner of the little brains as to be for the time being for all actual needs unavailable; with the fields and the woods so alluring there could be little thought or care for what might lie between the covers of any book, however attractive it might be in appearance.

Hence the month of September has been a month of "picking up dropped stitches" and "fastening threads," one may say.

Last year one of the daily exercises, and a favorite one with the children, was the selection of any sound of a letter, or combination of letters, and allowing the children to give words containing that particular sound; for instance, calling for the sound of *a long*, words would be supplied by the class, care being taken to classify them in columns, as they were given:

lame (with silent <i>e</i>).	rain (silent <i>i</i>).	way (silent <i>y</i>).
gave	fail	may
safe	bait	gay
tame	pain	say

If it were the sound of *aw*, making an arrangement like this:

<i>a</i>	<i>aw</i>	<i>au</i>	<i>o</i>
all	saw	caught	for
ball	dawn	taught	ought

If the sound of *sh*, an arrangement like this:

shall	shade	sug-ar	show-er
shell	shame	sure	shout
shed	shine		

This year the children vary the exercise a little, and give not only the *word* which they use in a *sentence*, but each child is expected to suggest *only* the word he is able to *spell*. These words are placed in columns on the blackboard, and serve as copy-work later in the session.

Thus a lesson in phonic-drill, sentence-making, spelling, and copying may be given with this one set of words. The children have become quite expert at this, and really suggest and spell quite difficult words.

Another exercise, which can but help in the spelling and punctuation, is to have a paragraph read daily from any one of the review reading lessons. When it has been read have some child tell you how it shall be written, and as she pronounces and spells each word write it upon the board, noting the capitals and marks of punctuation. Unconsciously the children learn to recognize these latter and learn the *names* of them, and to a certain extent the *use* of them.

The roman numerals are always a puzzle to the children at first. I have followed a little plan, suggested by a teacher who came to my school, and have found it interesting and instructive. Her plan was to have the children form the numerals on their desks with pegs or splints, a copy being set upon the board with the figures over the numerals as a little suggestion.

The children have been reviewing numbers below 20,

and applying the principle in the decades; thus, reviewing any number as 9, they found,—

4	5	7	2	3	6	1	8
5	4	2	7	6	3	8	1

and the reverse,—

9	9	9	9	9	9	9	9	9
5	4	7	2	3	6	3	8	1*

applying it to the decades,—

4	14	24	etc. ;	5	15	25	etc.
5	5	5		4	4	4	
7	17	27	etc.	2	12	22	etc.
2	2	2		7	7	7	
9	19	29	etc. ;	9	19	29	etc.
5	5	5*		4	4	4*	
9	19	29	etc. ;	9	19	29	etc.
7	7	7*		2	2	2*	

* These lines of figures are to be cancelled.

In this way what has been previously learned has no chance to grow rusty, and is a help in the advance work.

In multiplication the children have been working in groups of numbers to 12. We first took *two* groups of a kind; when this was familiar we took *three* of a kind; then *four*, and shall gradually increase the number of groups.

BOARD - WORK.

1	2	3	4
o	oo	ooo	oooo
o	oo	ooo	oooo
o	oo	ooo	oooo
o	oo	ooo	oooo
1, 2, 3, 4.	2, 4, 6, 8.	3, 6, 9, 12.	4, 8, 12, 16.
5	6	7	8
ooooo	ooo-ooo	ooo-oooo	oooo-oooo
ooooo	ooo-ooo	ooo-oooo	oooo-oooo
ooooo	ooo-ooo	ooo-oooo	oooo-oooo
ooooo	ooo-ooo	ooo-oooo	oooo-oooo
5, 10, 15, 20.	6, 12, 18, 24.	7, 14, 21, 28.	8, 16, 24, 32.
9	10		
ooo-ooo-ooo	ooooo-ooooo		
ooo-ooo-ooo	ooooo-ooooo		
ooo-ooo-ooo	ooooo-ooooo		
ooo-ooo-ooo	ooooo-ooooo		
9, 18, 27, 36.	10, 20, 30, 40.		
11	12		
ooooo-ooo-ooo	ooo-ooo-ooo-ooo		
ooooo-ooo-ooo	ooo-ooo-ooo-ooo		
ooooo-ooo-ooo	ooo-ooo-ooo-ooo		
ooooo-ooo-ooo	ooo-ooo-ooo-ooo		
11, 22, 33, 44.	12, 24, 36, 48.		

The children count 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, across the first line of dots; then down the first and second lines across the board, thus: 1, 2—2, 4—3, 6—4, 8—5, 10—6, 12—7, 14—8, 16—9, 18—10, 20—11, 22—12, 24—. During the first, second, and third lines, thus: 1, 2, 3—2, 4, 6—3, 6, 9—4, 8, 12, etc.

They are then taught the expression, — *once, twice*

three, or four times any group of objects, with the dots for reference.

The expression in figures is next taught, thus: "Tell me twice any number of cents."

BOARD - WORK.

Cts. Cts. Cts. Cts. Cts.
 $\times 2 =$ $\times 2 =$ $\times 2 =$ etc.

Result, as some child answers, "Twice 3 cents are 6 cents"; or, "Twice 5 cents are 10 cents."

Cts. Cts. Cts. Cts.
 $3 \times 2 = 6$ The reverse, $2 \times 3 =$
 $5 \times 2 = 10$, etc. $2 \times 5 =$ etc.

As twice any number becomes familiar, take up the expression of "three times any number," or "four times any number," etc. Take up the reverse of multiplication, using this same arrangement of balls or dots on the blackboard. The children read from the board: "Two, four,—two 2's in four; three, six,—two 3's in six; four, eight,—two 4's in eight," etc. The written expression is then given after the children understand, "two in any number; three in any number," etc.

"How many times can I find 4 cents in 8 cents? 5 cents in 10 cents?" etc.

Cts. Cts. Dols. Dols.
 $8 \div 4 =$ The reverse, $8 \div 2 =$
 $10 \div 5 =$ etc. $10 \div 2 =$ etc.

Last year, in drawing, or rather as a help to it, the children were given forms,—as squares, triangles, circles,—which they were taught to *outline* upon the slate, and to combine them into some *design*. This year they are encouraged to draw any simple object,—the waste-basket, the bell, the children's baskets, the vases, flower pots,—in fact, anything that may be at hand. The children have become so interested that they have brought little objects, as parts of tea sets, kitchen furniture from their doll-houses, etc. These are kept in a large box and loaned to any child who has done satisfactory slate-work, while the other children are finishing slate-work, or having it corrected and criticized.

Just now, while fruit is in abundance, is a very good opportunity to call the children's attention to the different kinds, dividing them into stone and seed fruits. One need take only a few minutes, but a little thought has been planted and the observation in the future will be all the keener. Friday afternoon the children always expect a little recreation of some kind, which shall belong to this last half-hour of the week.

We have tried *rhyming words*, "I am thinking of a word that rhymes with *at*." The children were rather puzzled at first, but one or two of the brighter ones soon get an idea of how to play it, and the others soon joined them, asking, "Is it what I wear on my head?" "No, it is not *hat*." "Is it what the mouse is afraid of?" "No, it is not *cat*." "Is it what the cat lies on?" "No, it is not *mat*." "Is it what she likes to

catch?" "No, it is not *rat*." "Is it what a boy holds in his hand when he plays ball?" "Yes, it is *bat*."

The children enjoy this very much, and will, I trust, learn to think quickly by means of it. Any exercise by which we can insure rapid and concentrated thought can but be a benefit to the child's mind, and the expectation of some simple reward like this, at the end of the week, for good attention and good work during the past week, can but help over some of the hard places that come in the daily path of teacher and pupil.

MODEL EXAMINATION QUESTIONS.

GEOGRAPHY.—If you were to make a voyage from Copenhagen to Rome, along the coast of Western Europe, what countries would you pass? Mention all important rivers, the mouths of which you would pass on this voyage. Mention large seaports, also the capitals of the countries you pass. Mention the mountain ranges and two important lakes situated in Western Europe. State what people inhabit these different countries, and what language they speak, etc.—Suppose a straight line be drawn from Washington to San Francisco, state through what States and Territories this line would go. Mention large cities south and north of this line. Mention the different mountain ranges and large rivers the line will cross, etc.—Describe the Ohio Valley; extent, rivers, watersheds, lakes (if any) canals, cities, manufactories, natural products, means of commerce, etc.—Why is Salt Lake salty, and Lake Erie not salty? Why are rivers on the east side of the Appalachian Mountains so much shorter than those on the west? Why does the Miami River flow south? What States are drained by the Mississippi? Why is the climate of Oregon much warmer than that of Minnesota? Name the principal waters that wash the shores of North America. How would you travel by water from Hamilton to New Orleans?—Mention the highest mountains in South America; the largest river; the largest State; four of the most important cities; two islands; two seaports, etc.—Describe a journey,—select your own point of destination.

UNITED STATES HISTORY.—Give a short account of the mound-builders. What led to the re-discovery of America by Columbus? Describe the Spanish explorations in the Southwest. State how the several colonies were governed. Give a short account of William Penn and his colony. Give a short account of the French and Indian War. What were the causes of the Revolutionary War? Define the terms of Revolution and Rebellion. State some leading ideas of the Declaration of Independence.

GENERAL HISTORY.—What are the sources of our knowledge of Babylonian, Assyrian, and Chaldean history? State what you learned of the culture of the

Shemitic races. State the rise and fall of the Phœnician State; a few dates. Give an account of the early history of the Hebrews; three dates. State what you learned of the customs and culture of the ancient Egyptians. What did Solon and Pericles do, that they deserve to be classed among the greatest of men? Describe the heroic death of Leonidas and his three hundred Spartans. Give a short account of the life and career of Tiberius Gracchus. State some causes of the downfall of the Roman Republic. Give an account of the Roman conquests in Gaul and Germany.

PHYSIOLOGY.—Describe the teeth. State how they are preserved, and what makes them decay early. State difference between teeth and bones. Give rules of Hygiene of the bones. (Examples.) Describe the anatomy of the muscular system. Give a description of the anatomy of the circulatory organs. Give an account of the physiology of the digestive organs. State hygienic rules regarding the respiratory organs. [Note.—In making these statements, confine yourself to the essentials. Lead-pencil sketches in the margin, illustrating the subject matter, will greatly enhance the value of the work.]

NATURAL PHILOSOPHY.—Describe the common lifting pump and the force pump. State the underlying principles. Describe the hydrostatic or hydraulic press; principles. Describe an artesian well; principles. Define: Matter, Inertia, Elasticity, Energy, Gravitation. Describe the formation of primary and secondary rainbows. State why, of all the colors, *red* is always at the top in a primary bow. Where is it in a secondary bow, and why? Show why the image of an object is as far behind the mirror as the object is in front. Describe the human ear, and state the functions of its principal parts. Give one important law of acoustics. Describe an organ pipe; also a string instrument, and show how sound is produced. [Note.—Lead-pencil sketches in the margin illustrating the subject matter, will greatly enhance the value of the work.]

LITERATURE.—State in chronologic order what races inhabited Great Britain, or ruled over it. What are the components of the English language now? State King Alfred's literary influence. Give a short biographical sketch of Chaucer. State the plan of the Canterbury Tales. Give leading features of the "Fairy Queen." What is the literary importance of Edmund Spenser? What is said about the early theatres? What is commonly understood by the term Literature? Give a brief account of John Milton's literary career. Give an account of Bacon's political success and disgrace. Give a brief synopsis of Shakespeare's *Hamlet*. State Shakespeare's influence in the history of the English language. Give the titles of three historical, two semi-historical or legendary, and five fictitious plays of Shakespeare.

BUSY WORK FOR CHILDREN.—CUTTING.

BY LUCY WHELOCK.

Forbidden fruit always seems the fairest, it is said, and possibly this is one reason why children, almost as soon as they begin to use their hands, evince such a desire to get hold of mamma's scissors and cut anything which comes to hand. Not unnaturally mamma tries to conceal these sharp-pointed implements, and the child's desire is unsatisfied. Like all other manifestations of childhood, this instinct for representation furnishes a means of development. If fostered and guided it is a factor in cultivating the imagination and power of observation, and in training to carefulness. Cutting is the child's natural method of expressing his conceptions of the world about him and his artistic feeling. With most children the ability to cut forms precedes that of drawing them. Where this occupation has been carried on to any extent, really artistic work is the result. I have seen wonderful little carts, horses, and people cut by a little girl whose scissors had lightened the tedium of a long illness.

In order to make this occupation available for busy work in primary schools, nothing is necessary but to supply each child with a pair of blunt-pointed scissors and waste pieces of bright paper, such as may be easily procured at a box-manufactory.

The cutting of the kindergarten, by which a regular series of forms is produced from the folded square, requires too much supervision where there is a large number of children; but the cutting of shapes for parquetry work is easily managed, and makes the little workers familiar with geometrical forms. Squares, triangles, rhombs, and other figures may be cut of different colored papers, and these may be combined into other geometrical forms and pasted upon sheets of paper. Almost every child will be able to bring his own bottle of mucilage for the pasting, and gradually beautiful stars, crosses, and other symmetrical forms will appear as the result of this work.

It is well to let the children cut out the shapes of different leaves in the autumn, thus leading them to observe carefully.

Very interesting lessons may be given in connection with the various trades, and the implements used in each may be represented by cutting.

We can cut out a hat, a pickaxe, and a basket for the miner; a saw, a hatchet, a chisel, etc., for the carpenter, and so on.

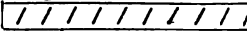
The furniture of a room, the articles used on the dinner-table, and John's house with the fence and trees around it, may be represented in this way. Satisfactory trees are made by cutting out the form of the top and the trunk, and then tearing out the branches with a pin or the fingers, leaving a rough edge for the foliage. A ship with the sails set and a flag flying from the

mast is easily produced by the scissors, and the outlines of mountains may be followed from drawings or pictures.

After some practice the little ones will be able to produce a dim likeness of a bird and certain animals. If the paper is folded during the cutting process a four-footed creature, — which will stand alone when certain necessary bends are given, — is placed upon the desk as a part of a farmer's stock or of a menagerie.

As the holiday season approaches the little workers will wish to make Christmas gifts or decorations for a Christmas tree, if they are so happy as to expect one. Nothing is prettier for a tree than little Japanese lanterns. Silver and gold paper and bits of gilt wall-paper are most effective for this purpose, with bright colors for trimming.

Take an oblong piece of paper and fold in the middle lengthwise; make a row of parallel cuts through the fold to within half an inch of the edge; unfold, paste the ends together; fasten on a handle and bands at the top and bottom of a different color, and you will have a gay little ornament for a tree or bower.

A book-mark is made by cutting a similar folded strip in parallel, slanting lines.  When unfolded the point of every other strip is folded back to lie under the point of the strips beyond. If the paper is colored on one side and white on the other the effect of the interlacing is very pretty. The book-mark may be cut in the form of a cross, and cut obliquely in the same way across the arms and up and down. In addition to the chains, which are most commonly made by intertwining rings of paper, another kind can be cut which is most effective when gold paper is used. A long strip of paper is necessary, which is folded lengthwise; then the two edges are folded back, one over and one under. Parallel cuts are made from the upper edge about a quarter of an inch apart, nearly across the strip. Between each of these cuts a similar cut is made *from the lower edge* of the strip. Great care must be taken in unfolding not to break the meshes. The delicate network can be stretched out three times the length of the original paper.

Bags, made of the same network, for holding nuts and sugar-plums, are very pretty ornaments for the tree. To make one, a square of paper must be folded the same as for the kindergarten cutting, until a right-angled triangle of eight layers of paper is produced. One of the shorter sides of this triangle is folded over upon the base, and the edge below is folded underneath to the base. The end of this form is cut off, leaving a long isosceles triangle. This folded triangle is cut in parallel slits, interchangeably from each side like the chain. When opened an octagon appears which stretches out into a long bag when some heavy object is placed within.

The ornaments are best made of tissue or thin paper.

Little bon-bon holders may also be made by cutting out circles of two or three colors of tissue paper, fringing the edges and tying the bit of candy within by a colored worsted or ribbon. As very few of the children will have compasses, an arrangement can be provided for every child with which to draw his own circles.

A stiff strip of pasteboard, with holes punched at intervals large enough to admit a pencil, is all that is necessary to draw circles of varying sizes. The strip is fastened to the paper at one end by a pin, and the pencil, inserted in one of the holes, draws the circumference desired. With this simple contrivance the possibilities of this occupation will be much extended, and the delight of the children in making wheels, wind mills, etc., will more than repay the teacher for the slight trouble necessary in providing for this work.

MISS WEST'S CLASS IN GEOGRAPHY.

BY FRANCES C. SPARHAWK.

XIV.

"Now, we will go further on," said Miss West, "and see what kind of country lies between the valley of the Mississippi and the Pacific Ocean. What lies directly west of this valley?"

"The Rocky Mountains," answered the class.

Then Miss West went to the board and drew a horizontal line. To the right of the middle of this line she made a cross; to the right of this cross, another; and upon this last erected a perpendicular. Then to the left of the center of the horizontal she made another cross, and upon it erected another perpendicular, higher than the first. From the top of each perpendicular she drew a line to the first cross that she had made. "Here is the Mississippi River," she said of this cross, "and this perpendicular on the right stands for the Alleghanies, and the one on the west for the Rockies. Now, the Rocky Mountains are the higher, but they are the farther off. Neither range goes up sharply to the top like a pitch-roof. But on both sides from the Mississippi you can go on and on, and often not realize that you are coming to mountains at all. You seem only to be going up a good many long hills that are not very steep, and you find plenty of level places between them. The difference is that west of the Mississippi you have to go farther to get to the mountains. Now, west of the Rockies is another range before we come to the Pacific. These are the Sierra Nevadas. And she drew them upon the unfinished map of North America. Then putting chairs down each side of a table to represent mountain-ranges, she showed the children the meaning of table-lands and told them about the nature of the table-lands between the western ranges, about the rivers there finding no outlet to the ocean, about the great salt lakes there, and the smaller ones. She also marked upon the map the Rocky Mountain range running north-

ward to the Arctic Ocean, and southward, brokenly, almost to the isthmus, to be renewed with greater energy on the other side of it. She showed the children the short Coast Range, also, and having thus marked out the elevations, asked them to point out the trend of the rivers. This they did with tolerable accuracy. She told them something of the climate and products of California, and found that many of them already knew its famous metal. Then she went northward, drew the outlines of Alaska, and going to British America showed the Mackenzie River, in a certain sense the balance of the Mississippi, draining a large amount of country. She showed them some of the lakes and their outflows, and that low central table-land which divides Hudson's Bay and its tributary waters from the great lakes and the valleys to the south of these.

"Now, we have come to the great lakes at last," she said. "How many are there?" And she stood back from the board, for her explanations and names had been following the lines of her ready crayon.

"Five," answered Frank Blake.

"Right. Will any one name them?"

Some knew the name of one, and some that of another, and with a little help from the teacher they were all given.

"Which is the largest one, the superior?" asked Miss West.

Johnny Smart laughed, and said that she had told them.

"Now," she went on, "you must imagine that these are five great saucers of different sizes, and you must remember that they flow from into the other, like sluices."

That's the reason Niagara Falls goes over so fast, is it, teacher?" asked Frank Blake. "'Cause it has four lakes-full to empty, and it has to be in a hurry?"

The children laughed; but Miss West thought that this was not a bad way of remembering it.

Then she drew the river and the Gulf of St. Lawrence, and so came round again to the Atlantic Ocean, from which she had started.

"Now, this is what I am going to do," she said. "Here is the map of North America, and particularly of the United States, our part of it. I shall leave it as it is until the next lesson, and then I want you to be able to tell me where to put in some of the large cities and the names of them. You may study any maps you please, and talk it over among yourselves as much as you like; but how many will promise me not to ask a question about it outside the class, or try to find out from any but each other?" Every hand went up. "I will give you one hint," added Miss West. "Large cities need to be beside water."

— Education begins the gentleman; but reading, good company, and reflection must finish him.— *Locke*.

THE TRUE STORY OF PRINCE ARTHUR.

BY EVELYN S. FOSTER.

If you count backward nearly four hundred years, you will find the birthday of little Prince Arthur, who was born in England, September 20, 1486. His father was Henry the Seventh, who conquered the wicked King Richard the Third, in the bloody battle of Bosworth. His mother was the beautiful Queen Elizabeth of York, sometimes called Elizabeth the Good. The people were very happy when this king and queen were married, for their marriage united two contending families and put an end to the dreadful civil wars that had made the country unhappy for many long years.

You have heard the sad story of the poor little princes, Edward and Richard, who were murdered in the Tower. They were Prince Arthur's uncles. This royal child was born in Winchester castle, which, tradition tells us, was built by the famous King Arthur, of whom Tennyson has written such beautiful poems. King Henry had hoped that a son might be born in that castle, on account of this pleasant tradition, for he claimed King Arthur for an early ancestor, and was fond and proud of his memory.

Soon after the little prince's birth, he was christened in a great cathedral. Dame Fortune did not smile on this christening, for the weather was stormy, the cathedral cold, and the baby was kept waiting three long hours for one of the noblemen who was to assist in the ceremony. After the baptism the prince was borne to his mother's chamber. The sound of trumpets and minstrels announced his approach. It was the custom of those old days for a child to be called by his name for the first time when his mother blessed him. After the queen had given her blessing, the king added his benediction. It was for the famous King Arthur, of whom I have told you, that this royal child was named.

This little prince is described as a pretty baby, plump and fair, full of smiles and winning ways. His surroundings, no doubt, were always magnificent. The old chronicles record that his cradle was "fair adorned with painter's craft." However, I fancy his sleep was no sweeter for that. His child-life was brightened by the presence of many brothers and sisters. He had a brother Henry, who, years after, became the cruel King Henry the Eighth, of England; a sister, Margaret, who married a Scottish king, James the Fifth; a brother Edmund; a sister Mary, who, at sixteen, was forced to marry the French king, a man over fifty years old; and a sister Elizabeth, who was the sweetest of all. She only lived a few short years, then began the heavenly life. Her body rests in Westminster Abbey.

You will think that Prince Arthur, although a royal child, did not escape from hard work, when I tell you the books he had read before his age numbered many years.

They were these: Homer, Thucydides, Virgil, Lucian,

Ovid, Cicero, and Quintilian, Cæsar, Tacitus, and other Roman historians.

There were two remarkable men whom I think Prince Arthur saw when he was a little boy,—Erasmus, the famous Dutch scholar, and Sir Thomas More. Sir Thomas More was the greatest English writer of those old days. I have read that he sometimes visited the royal children, and that once Erasmus went with him.

Two great historical events you can associate with Prince Arthur's boyhood; for, at that time Columbus, assisted by Queen Isabella of Castile, a lady who became Arthur's mother-in-law, sailed from Palos and discovered the New World, and John Cabot, sent by Henry the Seventh, discovered Newfoundland.

Before Prince Arthur was three years old he was betrothed to Katharine of Arragon, a Spanish princess. I have told you the name of her mother; her father, King Ferdinand of Arragon, is also renowned in history. Since Prince Arthur was the eldest son of the English king, he was called the Prince of Wales. Princess Katharine, consequently, after her betrothal, became the Princess of Wales. She was but a little girl at this time, only a few months older than the boy-husband chosen for her. When the children were about seven years old they began to correspond. As these letters were written in Latin and read and corrected by visitors and governesses before they were sent on their way, I hardly think they were an index of the hearts of the writers. Here is one the Princess Katharine received:

"I have read the sweet letters of your Highness, lately given to me, from which I easily perceived your most entire love to me. Truly those letters traced by your own hand have so delighted me that I fancied that I beheld your Highness and conversed with and embraced my dearest wife. I cannot tell you what an earnest desire I feel to see your Highness, and how vexatious to me is this procrastination about your coming."

This letter is addressed,—

"To the most illustrious and excellent princess, the Lady Katharine, Princess of Wales, Duchess of Cornwall, and my most beloved spouse."

I fancy the little boy had some help in using the long words of his letter so correctly. When the princess was fifteen years old she left her pleasant southern home to go to Prince Arthur's, in England.

Some one, writing of the marriage, which took place soon after the princess reached Great Britain, quaintly describes the dress of the bride:

"The bride wore upon her head a coil of white silk, with a scarf bordered with gold and pearls and precious stones, five and one-half inches broad, which veiled a great part of her visage and her person. Her gown was very large, both the sleeves and also the body; and beneath the waist were certain round hoops bearing out their gowns from their body, after their country manner."

Prince Arthur, also, was richly dressed in white satin. King Henry the Seventh has been often called a miserly king; but this characteristic did not prevent him from spending a very large sum of money for jewels in honor

of the marriage of Prince Arthur. These jewels were brought over from France. The marriage ceremony was performed by the Archbishop of Canterbury, assisted by nineteen bishops and abbots. After the wedding, there were banquets, tournaments, and pageants, and "all the nobility were set on pleasure and solace, and the king himself was principally given to joy and rejoicing." At one of the great dinners the young bride was served in gold plate, decorated with precious stones and pearls of great value. Many compliments were given to Prince Arthur and his wife. She was styled the "Western Star, Lady Hesperus," and he was called "Arcturus."

A few months after the marriage, Prince Arthur, always delicate, sickened and died. When the king heard of his great loss, he sent for the queen, saying "that he and his wife would bear their painful sorrow together." The queen, forgetting for a moment her own grief, with gentle words endeavored to comfort the king. She said at last: "As your Grace's wisdom is renowned all over Christendom, you must now give proof of it by your manner of taking your misfortune." The old chronicles tell us that the king "thanked her for her good comfort."

After that, when the queen was alone in her chamber, a sense of her great sorrow so overwhelmed her that her people sent for the king to come to comfort her. Then the king came and said many kind and soothing words, reminding her of the comforting thoughts she had given him, and telling her "that if she would thank God for their dead son, he would do so likewise."

Prince Arthur's bright qualities of mind and heart had endeared him to the people. The whole nation mourned with the king and queen. "With weeping and sore lamentation Prince Arthur was laid in the grave." He is lovingly remembered even now, and his virtues are recorded not only in history, but also in song. When we remember that the prince's brother, King Henry the Eighth, was once, like him, a young man admired for his generous impulses and cultivated mind, and then recall the picture that history gives of his after years, we cannot regret that Prince Arthur began the pure and peaceful life of heaven before flattery had spoiled the noble character which made him worthy to bear the name of "King Arthur," whom Tennyson calls "the blameless king."

NO TRUTH USELESS.—No matter how seemingly unconnected with human affairs or remote from human interests a newly-discovered truth may appear to be, time and genius will some day make it minister to human welfare. When Dr. Franklin was once skeptically asked what was the use of some recondite and far-off truth which had just been brought to light, "What," said he, "is the use of babies?"—*Horace Mann.*

A LANGUAGE GEOGRAPHY AND HISTORY LESSON.

(FOR VERY LITTLE FOLKS.)

BY THE AUTHOR OF "PRESTON PAPERS."

Teacher.—(Presenting a picture of "Washington Crossing the Delaware" to the class)—Children, what is this in my hand?

Children.—A picture!

T.—Yes, it is a picture; and if you like we will study this instead of our geography lesson this afternoon. What is it, Frank? I see your hand is raised.

Frank.—I don't see how we *can* study a picture.

T.—Be patient and you will see. But let me ask you: what you *mean* by "study"?

F.—Why, saying "Two tums two are four"; or, h-o-u-s-e house, so many times you can't forget it.

T.—Yes; a great many people call that studying, but it is *not* study unless you *think* while you are saying it. When you stop *thinking* you stop studying. Do you see the difference?

F.—Yes, ma'am.

T.—One other thing; you said "Two *tums* two." Is that right?

F.—I meant "Two *times*."

T.—We must be careful about the sound of our words as well as about our words. You also said, "are four." Is that right?

F.—I don't know.

T.—Well, all people do not agree about this word in this place; some use *are* and some use *is*. I like *is*, because if I said all that I meant, it would be "The product of 2 and 2 is 4."

But now how many of the class think they can *study* this picture? Ah! I see a great many hands raised, and before we finish I hope we shall all find that we have studied. Now all look closely, and Mary may tell me what she first saw in the picture.

Mary.—A lot of men in a boat.

T.—Can you think of a better way to speak of the men?

M.—*Some* men.

T.—Yes, that is better. A lot of ground, but a number of men. John, what did you first think about the picture?

John.—I was afraid the man that was standing up would fall down.

T.—Why?

J.—Because the waves are so high that the boat will rock.

T.—And that is a good reason. You have *studied* the picture. But I want to ask you why you say "standing up" and "fall down"? Would you mean just the same if you said "standing" and "fall"?

J.—(*Slowly*).—I guess so,—only I never thought about it before.

T.—There is just the trouble. We do not *think* enough, and use our words without studying them. Who can tell me what kind of weather is shown by the picture?

(*Several voices.*)—Stormy weather.

T.—What makes you think so, Albert?

Albert.—Cause the waves are so high.

T.—And does the weather make any difference with the waves?

A.—Yes, ma'am. The water is smooth unless the wind blows.

T.—True. Now let us think about what John said. One man is standing, although the waves are high and the wind is blowing. Is that common? Laura, what do you think?

Laura.—I should want to set down and keep warm.

T.—You mean *sit*, I suppose. Perhaps there is a reason for his standing, and we may be able to find out about it after a time. Now look again, and see if any of you can tell me whether it is a picture of our own time or some other year. Charles, what do you see that will help you decide?

Charles.—Their clothes are old-fashioned.

T.—Yes, they are such as our great-great-grandfathers wore a hundred years ago. And the picture is named "Washington Crossing the Delaware." Who knows anything about Washington? (Many hands are raised.) Well, Grace, you are the youngest in the class,—you may speak first.

Grace.—(*Earnestly, but with a little embarrassment.*)—He cut down his papa's apple-tree, and never told a lie about it. And he wouldn't go to sea, because he loved his mother and she wanted him to stay with her!

T.—Very good, John; where did Washington live?

John.—I don't know.

T.—Do any of you? (Silence.) On my table is a book that will tell us a great many things about Washington. Any of you who wish may look at it after school, and to-morrow at this time I would like to have John tell me where Washington lived. Emma may find out when he was born, and how many years he lived; Henry may tell us how he came to be in this boat on this river; and the rest of you may find out any other thing to tell us about him that you wish. Now who knows *where* the Delaware River is. Ah! all of you do. That looks as if it might be one of our old friends. We have "studied" the picture long enough for to-day. To-morrow we will look at it again, and I will tell you more about the river and the land around it, and the great trouble the people were in at the time these men were with Washington. You may then write in your blank-books what you can remember of it all.

The above was the beginning of what grew into an enthusiastic history class in a primary department. A love of the study was cultivated; and geography, language, composition, spelling, and penmanship grew

from the seed. We did not use books, for the pupils were too young to "learn" set lessons in any of the text-books on those subjects; but the school was supplied with wall-maps and charts, and I was supplied with books and pictures, which I always *would* have whether my salary was large or small. I would as soon think of going without shoes as without my professional books and papers, or of not paying my board-bill, as soon as not to add to my "tools" to work with. It was a part of my stock in trade, and has always been capital well invested.

TWILIGHT STORIES.

BY MARGARET M. STONE.

[Continued from last No.]

"But I must hasten to the time when the prince, as we may call him, arrived at —, well, at the land of Somewhere. He did not say who he was, at first, but some one finding out, and wanting to get rid of him, made the old king believe that this stranger had some wicked design against him, and persuaded him to invite the prince to a feast, and have poison put into the cup from which he was to drink, so that he might be killed. When all was prepared, the guests assembled; but, when the meat was placed on the table, before the young man had drank, he drew out his sword as if he were going to carve with it, and he flourished it about in such a way that his father recognized it, and threw down the cup of poison and told the people that this was his son; and you may be sure that, when he found him to be such a fine, powerful, brave young man, he was very proud of him.

"Now it happened that, because of a war in which they had been defeated, the people were obliged to send, every year, seven young men and seven young women to their conquerors. Having arrived in the enemy's country, they were placed in the middle of a labyrinth where a wild beast was kept, and they never could find their way out again."

"What is a labyrinth, Aunt Fanny?" asked Edith.

"It is a place with so many winding paths that if one is taken in and left in the middle, he only gets more and more lost if he tries to find his way out. When the time came for the yearly tribute to be sent, and they were about to decide by lot who were to go, the young prince announced his determination to be one of the number, whether the lot fell to him or not. He wished to share their danger; and, besides, he hoped, if he went himself, he should be able to find some way out of all their troubles. So, after the lots for the others had been cast, they set sail together in a ship with a black flag; but they carried a white flag also, to be hoisted on the homeward voyage if the young prince should be successful, and come back again in safety. On their arrival they were at first treated kindly, but,

although the brave prince was greatly admired for the beauty of his person and for his courtly manners, no exception to the usual fate of the captives was to be made in his favor. The king, however, consented that, if he should kill the wild beast and find his way out of the labyrinth, both of which he thought impossible to do, then he and his companions should be allowed to return home, and this terrible tribute should never be demanded again. Now the king's daughter was so charmed by the gallant young prince, that she felt very badly at the thought of his great danger, and at last she devised a plan for helping him. She gave him a ball of fine silk, one end of which was fastened at the entrance of the labyrinth, near the ground where it would not be seen; then, as he was conducted in through the maze of bewildering paths, the silken thread unwound, and, by following it as he wound it up again, after his guide had left him alone, he found his way out of the frightful place, stopping by the way long enough to kill the terrible monster. When he came forth unharmed there was great astonishment. His friends rejoiced exceedingly, and soon after they all embarked on their return voyage. But in the midst of so much joy and excitement, they neglected to replace the black flag with the white one. The old king was on the shore watching for the return of the ship, and he was so much overcome on seeing the sable signal still flying that, not knowing it was left at the mast-head only by careless forgetfulness, he fell from a rock and was killed."

"Oh, wasn't it too bad!" exclaimed Alice.

"Why, yes, it was kind of hard on him," said Tom. "But then, you know, he wasn't any kind of a father, anyway; so the prince couldn't have cared so much."

"What is the rest of the story, Aunt Fanny?" asked Edith.

"There isn't much more to tell," said Aunt Fanny. "After his father's death, of course, the prince became king; so this is the end of the story of the young prince, you see."

"I guess I know the prince's name," said Ben.

"Oh, tell us," exclaimed the other children.

"No," said Aunt Fanny. "Try to find out for yourselves, either from some book or by telling the story again so well to some one else that you can gain the information you wish. Ben may tell you to-morrow night, if you don't find out before that time."

"I'm not quite sure," said Ben. Then, coming closer to Aunt Fanny, he whispered in her ear, "Did he live in Athens?"

"Yes," said Aunt Fanny.

STUDY OF SCIENCE.—A science approximates perfection only as it more nearly exhausts all the truths which belong to that science in the constitution of things. No science will be perfect until all the truths which God has wrought with the subject of it are revealed.—*Horace Mann.*

SOCIAL HOURS.

AN OPENING EXERCISE.

Teacher.—Our Father who in heaven art,
Fill Thou to-day each childish heart,

(Response.)—With love and reverence.

T.—Grant that to-day within our school
Each shall enact the Golden Rule,
R.—In true obedience.

T.—Grant that our feet those paths may tread
Where Thou, our Father, oft hath said,
R.—Lie peace and purity.

T.—Help us our daily task to learn,—
Help us temptations great to spurn,
R.—And all iniquity.

T.—To Thee, O Lord, the glory be,
The power, grace, and majesty,
R.—Now and forever.

Let one section of the class learn the initial prayer, and the other section learn the response.—*School Journal.*

COLUMBIA.

Columbia, Columbia, to glory arise,
The queen of the world and child of the skies!
Thy genius commands thee; with rapture behold,
While ages on ages thy splendors unfold.
Thy reign is the last and the noblest of time,
Most fruitful thy soil, most inviting thy clime;
Let the crimes of the East ne'er encrimson thy name,
Be freedom and science and virtue thy fame.

TIMOTHY DWIGHT.

SCHOOL ALPHABET.

[FOR A SCHOOL EXHIBITION.]

[This is very pretty when each little one holds and raises above her head, as she speaks, a capital letter covered with evergreens or flowers.]

A is the *alphabet* that little folks learn;
B is for *books*, coming next in their turn;
C is for *clock*, making time in its flight;
D is for *desk*, where we study and write;
E is for *early ones*, who are prompt at the call;
F is the *friendship* we cherish for all;
G is for *goodness*, may each have a share;
H is for *honesty*, we hope it's not rare;
I is the *idleness* we fight every day;
J is for *judgment*, which governs our way;
K is for *kindness* toward schoolmates and friends;
L is for *love*, which our pathway attends;
M is for *music*, which brightens our way;
N is for *noon*, the time we can play;
O is for *order*, it's rules we'll not break;
P is the *progress* we hope we shall make;
Q is the *questions* to which answers we find;
R is the *rule* which we ever will mind;
S is the *school*, which we love every day;
T is for *truth*, which shall guide all we say;

U is for *union* in all that is right;
V is for *virtue*, may it ever be bright;
W is for *welcome*, which all our friends claim;
X is this *cross* with our fingers we frame;*
Y is our *youth*, the time to improve;
Z is for *zealous* in work that we love.

All.—We have now said our alphabet full and complete,
 So we'll bow you our thanks, and return to our seat.

* Crossing fingers.

THE NATIONAL BANNER.

All hail to our glorious ensign! courage to the heart, and strength to the hand, to which, in all time, it shall be intrusted! May it ever wave in honor, in unsullied glory, and patriotic hope, on the dome of the capitol, on the country's stronghold, on the entented plain, on the wave-rocked topmast!

Wherever, on the earth's surface, the eye of the American shall behold it, may he have reason to bless it! On whatsoever spot it is planted, there may freedom have a foothold, humanity a brave champion, and religion an altar! Though stained with blood in a righteous cause, may it never in any cause, be stained with shame!

Alike, when its gorgeous folds shall wanton in lazy holiday-triumphs on the summer breeze, and its tattered fragments be dimly seen through the clouds of war, may it be the joy and pride of the American heart! First raised in the cause of right and liberty, in that cause alone may it forever spread out its streaming blazonry to the battle and the storm! Having been borne victoriously across the continent and on every sea, may virtue and freedom and peace forever follow where it leads the way!

EDWARD EVERETT.

A LITTLE BOY'S ADDRESS.

[FOR A SCHOOL EXHIBITION.]

A farmer there was, who brought to his barn
 One morning, quite late in the fall,
 A little, late colt, poor and homely in shape,
 And timid and awkward, withal.
 Old Dobbin, the farm-horse, scarce deigned him a look,
 While Lightfoot, the spirited gray,
 Neighed loudly enough to be heard all around,
 "I hope he'll keep out of *my* way!"
 The farmer's good wife, when she saw the poor thing,
 Exclaimed, "Pray, what have we here?
 No horse for the road or the farm can be made
 From this stupid starveling, that's clear."
 The neighbors declared it a poor, worthless thing,
 That ne'er for its keeping would pay;
 But the farmer, undaunted, gave colty a stall,
 And fed him with care, every day.
 As time waned apace, he began to repay
 The patience and care which was shown,
 Till at length, e'en Old Dobbin and Gray stood aside,
 Such a fine, noble steed had he grown.
 And not long ago, when the State held a fair,
 Where gathered the horse-judges wise,
 This late, little colt, of unpromising birth,

Was there, and received the first prize.
 Kind friends and dear parents, assembled to-day,
 To pass on us your judgment wise,
 Remember that we are the little, late colts,
 And our efforts, pray, do not despise.

We have not lived long enough yet to have grown
 Well proportioned, and graceful in mind;
 We cannot keep pace with the strong and the fleet,
 We are weak, and they leave us behind.
 But when we've been fed by the strong, mental food
 That makes people learned and great,
 And when we've grown out of these jackets and frocks,
 And become more mature and sedate,
 We hope that the feeblest and least in our school
 Will reflect all the credit we owe
 To you, our dear teacher, dear parents and friends,
 For the patience and care you now show.

M. J. V.

THE AMERICAN FLAG.

When freedom, from her mountain height,
 Unfurled her standard to the air,
 She tore the azure robe of night,
 And set the stars of glory there!
 She mingled with its gorgeous dyes
 The milky baldric of the skies,
 And striped its pure celestial white
 With streakings of the morning light;
 Then from his mansion in the sun
 She called her eagle bearer down,
 And gave into his mighty hand
 The symbol of her chosen land.

Flag of the free hearts' hope and home,
 By angel hands to valor given,
 Thy stars have lit the welkin dome,
 And all thy hues were born in heaven.
 Forever float that standard sheet!

Where breathes the foe but falls before us,
 With freedom's soil beneath our feet,
 And freedom's banner streaming o'er us?

JOSEPH RODMAN DRAKE.

OUR GREETING SONG.

[FOR A SCHOOL EXHIBITION.]

With happy hearts we now will seek
 The passing hour to cheer,
 While songs we sing, and words we speak,
 Will give you welcome here.
 How dull would be the work we do
 If it were not for song,
 To cheer the hours of study thro'
 And let them speed along.
 The time we spend our minds to store
 Is labor not in vain;
 We know when school-days once are o'er
 They come not back again.
 Our moments are as grains of gold,
 If sown with careful hand;

We'll harvest fields of wealth untold
That wealth could not command.
As we the hill of science tread
What obstacles abound;
Tho' barriers rise, fame's flowering meads
Will at the end be found.
For duty's path, though rough, is plain,
If we have earnest will,
Success in life we may obtain,
And well our stations fill. *

* From *School Chimes*, where, on page 168, appropriate music will be found. Published by S. Brainard's Sons, Cleveland, Ohio.

ADDRESS FOR CLOSE OF TERM OR YEAR.

Kind friends, who have listened to our efforts to-day, I thank you, in the name of the whole school, for your presence and your attention. We hope we have not disappointed you. With many of us it has been our first attempt at public speaking. Long ago a boy declaimed before such an audience, I dare say, as this, who said, "Tall oaks from little acorns grow"; and it is just as true to-day as then. We are fitting ourselves, little by little, to fill the places of the men and women of to-day. Years hence you may hear from us, mingling with the great world, helping forward, in one way and another, life's good work.

Teacher, we thank you for all your kind endeavors to do us good. May your good wishes for us be all fulfilled in years to come.

Schoolmates, we part companionship to-day to go to our several homes, our various amusements, and our separate work. We part friends, and carry with us pleasant memories of happy faces. May our future lives be as useful as our term has been pleasant. And may the world, the great school in which we are all scholars, find us faithful in all the good lessons we have to learn; in short, may we make our lives a grand success, and be admitted to a higher school in the life to come.

And now, friends all, with thanks for the past and good wishes for the future, it is mine to say good-bye.

ELLEN O. PECK.

NO, NOT ONCE.

"Only once," the tempter said, with smiling lip.
Tempted thus, the young man took the fatal sip;
And time passed on. Hush! gently tread;
Death guards this night the drunkard's bed!

"Only once," the tempter said, with winning voice.
Seizing the box, the young man threw the rattling dice;
And time passed on. What can earth have
More sad than this,—a gambler's grave!

"No, not once," the young man said, and rising up,
Wavering not, he pushed aside the sparkling cup;
And time passed on. No nobler fame
Has earth than this,—an honored name.

"No, not once," the youth exclaimed, and turned away.
Others filled his place, and joined the exciting play;
And time passed on. How lived that boy?
A father's pride, a mother's joy!

IN SCHOOL DAYS.

Still sits the school-house by the road, a ragged beggar sun-
ning;
Around it still the sumachs grow, the blackberry vines are
running.
Within the master's desk is seen, deep-scarred by raps
official;
The warping floor, the battered seats, the jack-knife's carved
initial.
The charcoal frescoes on its wall; the door's worn sill
betraying
The feet that, creeping slow to school, went storming out to
playing!
Long years ago a winter's sun shone over it at setting,
Lit up its western window panes and low eaves' icy fretting.
It touched the golden, tangled curls, and brown eyes full of
grieving,
Of one who still her steps delayed when all the school were
leaving.
For near her stood the little boy her childish favor singled;
His cap pulled low upon a face where pride and shame were
mingled;
Pushing with restless feet the snow to right and left, he
lingered;
As restlessly her tiny hands the blue-checked apron fingered.
He saw her lift her eyes; he felt the soft hand's light
caressing,
And heard the trembling of her voice, as if a fault con-
fessing.
"I'm sorry that I spelt the word; I hate to go above you,
Because,"—the brown eyes lower fell,—"because, you see,
I love you!"
Still memory to a gray-haired man that sweet child-face is
showing,—
Dear girl! the grasses on her grave have forty years been
growing.
He lives to learn, in life's hard school, how few who pass
above him
Lament their triumph and his loss, like her, because they
love him.

LAST DAY.

[FOR A VERY LITTLE GIRL.]


We've trodden many a happy mile,
And short has been the way,
And swiftly passed the moments, while
We came here, day by day.
We little ones have learned as much
As our small heads can hold;
And knowledge, as we know quite well,
Will help us more than gold.
We learn to read, and write, and spell!
And as we older grow,
We hope on each last day to tell
How many things we know.
But now the parting hour draws near,
And with a kiss* and smile,
We bid you, friends and teacher dear,
Good-by for a little while.

LUCY B. WIGGIN.


* Throw kisses.

NEVER SAY FAIL.



D. BATCHELOR.

♩ = 120. *Resolutely.*



1. Keep work - ing,— 'tis wis - er Than sit - ting a - side, And
2. With eye ev - er o - pen, A tongue that's not dumb, And
3. In life's ros - y morn - ing, In man-hood's firm pride, Let



dreaming, and sigh - ing, And wait - ing the tide; In life's earnest bat - tle, They
heart that will nev - er To sor - row suc - cumb—You'll bat - tle and con - quer, Tho'
this be your mot - to, Your footsteps to guide; In storm and in sunshine, What-

on - ly pre - vail, Who dai - ly march on - ward, And nev - er say fail.
thousands as - sail; Then dai - ly march on - ward, And nev - er say fail.
ev - er as - sail, We'll on - ward and con - quer, And nev - er say fail.




Nev - er, nev - er say fail, Nev - er, nev - er say fail.



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MOTHER GOOSE.

Some people doubt the tale of Pocahontas;
Some say we must give up our William Tell;
What shall we do, should they begin to want us
To give up our dear Mother Goose, as well?
Give up the dear old lady? No, no, never!
The bond between us nothing shall unloose;
The links that bind us to her, nought shall sever;
The children's Patron Saint is Mother Goose!
Then keep a welcome in the warmest corner
Your kind hearts have, for Mother Goose to fill,
Each year, with Pringle, Muffit, Prim, and Horner,
For Simon, Shaftoe, Trot, and Jack and Jill,
Daffydowndilly, Bo-peep, Pumpkin-eater,
Nan-Etticoat, and him who stole the tarts;
And Mother Goose, herself, than all, the sweeter,
For Mother Goose herself is Queen of Hearts!

VACATION IS COMING.

[FOR A LITTLE BOY.]

The last day has come, and vacation is near,
We welcome its coming with right good cheer.
We love our school-room and school-mates gay,
And our teacher's face to greet each day.
But boys are made up in a way just so,
They cannot forever choose study, you know.
So, with the best wishes to all our mates,
We shall bid adieu to our books and slates.
To you, dear teacher, for patience and care,
May vacation of good things bring a large share.
O, joy to you all, vacation is near,—
When school is excused, let us give a round cheer.

E. O. P.

A GLASS OF COLD WATER.

Where is the liquor which God the Eternal brews for all His children? Not in the simmering still, over smoky fires choked with poisonous gases, and surrounded with the stench of sickening odors and rank corruptions, doth your Father in heaven prepare the precious essence of life, the pure cold water. But in the green glade and grassy dell, where the red deer wanders, and the child loves to play; there God brews it. And down, low down in the lowest valleys, where the fountains murmur and the rills sing; and high upon the tall mountain tops, where the naked granite glitters like gold in the sun; where the storm-cloud broods and the thunder-storms crash; and away far out on the wild, wide sea, where the hurricane howls music and the big waves roar; the chorus sweeping the march of God; there he brews it,—that beverage of life and health-giving water. And everywhere it is a thing of beauty, gleaming in the dew-drop; singing in the summer rain; shining in the ice-gem, till the leaves all seem to turn to living jewels; spreading a golden veil over the setting sun, or a white gauze around the midnight moon.

Sporting in the cataract; sleeping in the glacier; dancing in the hail shower; folding its bright snow curtains softly about the wintry world; and waving the many-colored iris, that seraph's zone of the sky whose warp is the rain-drop of earth, whose woof is the sunbeam of heaven; all checkered over with celestial flowers, by the mystic hand of refraction.

Still always it is beautiful, that life-giving water; no poison bubbles on its brink; its foam brings not madness and murder; no blood stains its liquid glass; pale widows and starving orphans weep no burning tears in its depth; no drunken, shrieking ghost from the grave curses it in the words of eternal despair. Speak on, my friends! would you exchange for it demon's drink, alcohol?

J. B. GOUGH.

"A LITTLE BIT OF BRAG."

[OPENING ADDRESS.]

Dear Parents and Friends:—Our teacher saw a letter written by a great man in Germany, and it was called "A Little Bit of Brag." Maybe you'll think that's the name of my piece, but never mind; we are very glad to see you today, for, O, it's ever so long since some of you have been here; I guess it's 'most a year,—and you don't know what lots of things we have been doing in that time. We have learned to spell, and read pretty well; we can write something and reckon a little; we can tell you about "Our World;" we can sing, and *whistle*. We can tell you about sugar, coffee, rice, tea, spices,—and I shouldn't wonder a bit if we could tell papa and mamma some things about them that they didn't know! Then we have been so happy, and had such good times! You ought to come and see us oftener, for our teacher says she never saw a little boy or girl who hadn't something interesting about them, and I think *she ought to know*. She loves some of us that other folks call only a bother and a plague. This is only "a little bit of brag," and I'll stop now; for mother said, the other day, "The proof of the pudding is in the eating." I don't know what she meant, but I guess it was that you could tell better whether anything was good after you had tried it. I'll ask her; but please tell us, before you go home, if you think it true, that "Little folks should be seen and not heard."

B. L. Y.

NOTES AND QUERIES.

Questions and answers for the Notes and Queries should reach us by the first of each month to insure publication in the following number.

We desire that our patrons should consider themselves at liberty to take part in the discussions of the Notes and Queries. You are invited to send in such questions as you desire to have answered; we also solicit answers to questions given.

ALL COMMUNICATIONS FOR THIS DEPARTMENT MUST BE SENT TO THE EDITOR, 16 HAWLEY STREET, BOSTON, MASS.

ANSWERS TO QUERIES.

1. What battle in the history of the United States was fought and won without a commander?

The second battle of Stillwater or Saratoga was fought while General Gates remained in camp. Arnold, who led the troops to victory, had been deprived of his command, and had no authority to go into battle.

A. D. HALL.

The battle of Lexington was fought without a commander.

S. OLIVIA SMITH.

The Battle of Missionary Ridge, in the Rebellion, was fought and won without a commander. Orders were given our troops to drive back the first line of the Confederates, who were entrenched some distance below the summit of the Ridge. When this was accomplished, our troops found themselves under a severe artillery fire from the enemy stationed above them. Without waiting for orders from our commanders, who had a different plan in view, our men rushed forward, and by a desperate charge, captured the batteries, drove the rebels from their position, and won the victory.

EDITOR.

4. What gave the name of *Iceland*?

Iceland was so called by a native who wished to persuade the people to emigrate to Greenland, and contrasted the climates of the two countries by the names which he gave them.

7. What title did William III., Prince of Orange, have in his own right to the English crown?

William III., Prince of Orange, was the son of William II. of Orange, and Mary, eldest daughter of Charles I. of England.

J. H. W. SCHMIDT.

8. Where is the real Hub,—that is, the center of the country? Where is the center of population?

In the eastern part of Kansas is the real "hub" of the country,—that is, its center,—a little west of the capital. The center of population in 1880 was near the village of Taylorville, Ky., about eight miles from Cincinnati.

11. What is the tiara?

It is the triple crown of the Pope, symbolical of his temporal, as the keys are of his spiritual, authority. It is composed of a high cap of gold cloth, encircled by three coronets, with a mound and cross of gold on the top. From the cap hang two pendants, embroidered and fringed at the ends.

BARBARA GREENWOOD.

12. When did a fog save an army?

After the battle of Long Island, in the Revolution, the American army withdrew under cover of a fog.

13. What is the Congressional deadlock?

A "Congressional deadlock" takes place when a vote upon a question shows a tie *pro* and *con*. It sometimes results when political parties are very evenly balanced, and party fealty is observed in voting.

J. H. W. SCHMIDT.

14. What president had not voted for forty years?

Zachary Taylor entered the army in 1808, and was elected President in 1848. During the forty years of his service in the army he could not vote.

A. D. HALL.

22. When was the crown of England lost in a hawthorn bush?

It is said that at the battle of Bosworth Field, fought August 22, 1485, the crown of England was found in a hawthorn bush near the field of battle, and with it the victorious Earl of Richmond was crowned Henry VII.

24. Name the "Gospels" of the New Testament.

Matthew, Mark, Luke, and John.

25. Who are the most distinguished American poets now living? The most prominent literary men?

James Russell Lowell and John G. Whittier. Oliver Wendell Holmes, James G. Parton, William D. Howells, and Henry James.

26. What President of the United States was married during his term of office?

John Tyler was a widower when he became President, but soon afterward married Miss Gardner, an heiress.

27. What spot in Britain first felt the tread of English feet? Ebbsfleet, on the shores of the Isle of Thanet, first felt the tread of English feet, at the landing of Hengist and his war band.

28. Who is called the "Father of English poetry"? Chaucer.

34. What bet was lost by Queen Elizabeth? Sir Walter Raleigh, conversing with Queen Elizabeth one day upon the singular properties of tobacco, assured her that he could tell the exact weight of smoke in any quantity consumed. The Queen dared him to a wager. Accepting it, he weighed his tobacco, smoked it, and then carefully weighing the ashes, stated the difference. Queen Elizabeth paid the bet.

HATTIE A. MAINE.

38. Who became king by the neighing of his horse? After the death of Smerdis, the Magian, seven princes of Persia agreed that they would ride to the top of a hill in the early morning, and that he should be king whose horse first neighed. The horse of Darius was the first to neigh, and so gained the royal honor for his master. This good fortune came from the fact that the groom had for several days preceding this memorable morning taken the horse to the appointed place before daylight.

39. How did the thistle come to be placed in Scotland's national arms?

The Danes thought it cowardly to attack an enemy by night, but on one of their invasions of Scotland deviated from their custom. They crept along, barefooted, unobserved, until they were near the spot. At that moment a soldier stepped on a thistle, and the hurt made him utter a shrill cry of pain. This awoke the sleepers, and each man sprang to his arms. They fought with great bravery, and the invaders were driven back with much loss. Since that time the thistle has been adopted as Scotland's emblem, with the motto, *Nemo me impune lacessit* ("No one wounds me with impunity").

QUERIES.

40. What is the earliest autograph of an English king extant?

41. Who is the author of the little poem beginning,—
"Spring once said to the nightingale,
I mean to give you birds a ball?"

42. Who is the author of the following verse, and where is it to be found?

"Kind hearts are the gardens,
Kind thoughts are the roots,
Kind words are the blossoms,
Kind deeds are the fruits."

43. Who has been President, Vice-president, Minister to England, Governor, and member of both houses of Congress?

44. When and what was the first school law in America?

45. What volcano is called "the lighthouse of the sea"?

46. What is the political meaning of Junta?

47. Over whom was the epitaph inscribed, "Here lies one who never knew fear"?

48. Who was the only English sovereign who died without being crowned?

49. Who was the last Saxon Bishop?

50. What king died in the water on horseback?

51. How many and what states require the public schools to give instruction in regard to alcohol and tobacco?

52. Name the five greatest American poets.

53. Name the five best authors among American women.

54. Give some good method of teaching history.

55. An enigma for the class in history:

I am composed of 45 letters.

My 3, 8, 1, 43, 14, 42, discovered the Pacific ocean.

My 24, 23, 44, 22, 27, married a famous Indian girl.

My 39, 38, 36, 33, founded Philadelphia.

My 18, 17, 1, 22, 31, "read a great poem before a great fight."

My 18, 40, 41, 5, 4, 30, was a brave general killed in the battle of Lexington.

My 19, 1, 44, 25, 20, captured Fort Ticonderoga.

My 32, 28, 16, 29, 1, 10, and my 8, 9, 21, 5, 45, were an American and an Englishman whom the following describes:

"Two men engaged in a fiendish plot,

The good was hanged, the bad was not."

My 22, 11, 1, 6, 17, 12, invented the first steamboat.

My 6, 32, 7, 1, 14, 28, died soon after he became President of the United States.

My 1, 14, 11, 2, 37, 35, 8, 15, 8, was purchased by the United States from France in 1803.

My 34, 8, 26, 13, 37, was a man who in 1865 tried to escape from his enemies by fleeing, it is said, in a woman's garments.

My 43, 14, 17, 16, 31, was a pioneer and Indian fighter.

My whole is a fine extract, often quoted from Daniel Webster, on "The American Union."

EVELYN S. FOSTER.

AMERICAN TEACHERS' BANDS OF MERCY.



Every teacher who obtains twenty signatures to this pledge,—
"I will try to be kind to all HARMLESS living creatures, and try to protect them from cruel usage," and sends to Geo. T. Angell, Esq., President of Parent Band, 96 Tremont street, Boston, name of "Band" and its president, saying it is a branch of American Teachers' Band, will receive without cost,—

- (1) A beautiful metallic badge.
- (2) Full information what to do and how to do it.
- (3) Band of Mercy melodies.
- (4) Ten lessons on kindness to animals, with stories, etc.
- (5) *Our Dumb Animals*, monthly paper, one year.

There are, October 9, 1885, 5072 Bands in the United States, with over 320,000 members.

559. St. Louis, Mich.: P. and S., Zada Lee.

560. Princeton, Ill.: *Little Helpers' Band*.

561. Grenada, Miss.: *Pearl Rivers Band*. P. and S., Lulu Poitevant.

562. Menardville, Tex.: P. and S., John W. Hunter.

563. Sycamore, Ill.: *Silver Star Band*. P. and S., V. A. Allen.

564. Norwich, Conn.: *Excelsior Band*. P. and S., C. E. Rogers.

565. Pembina, Dak.: *School Band*. P. and S., P. Ahearn.

566. Wadsworth, O.: *Little Gleaners' Band*. P., Willie Lemon; T., Jennie Shane.

567. East Hanover, Pa.: P. and S., Ira E. Albert.

568. Freebury, Pa.: P., Dora Schaffer; S., Ida J. Moyer.

569. North East, Pa.: *Keystone Band*. P., Belle W. Munger; S., Edna B. Wilcox.

570. Dalton, Mass.: *Cransville Band*. P., Johanna Woodlock; S., David W. Barnard.

571. Menardville, Tex.: P. and S., John W. Hunter.

572. Haydenville, Mass.: *Pansy Band*. P. and S., M. L. Rice.

573. Farwell, Mich.: *Little Learner's Band*. P., Vina Graham; S., Jennie Coon.

574. Farwell, Mich.: *Water Lily Band*. P., Sammie Davison; S., May Sexton.

575. Shortsville, N. Y.: *Our Little Ones Band*. P., Ruth Harlow; S., Bertha Klinck.

The Kindergarten, AND THE NEW EDUCATION.

All communications for this department should be sent to W. N. HAILMANN, La Porte, Ind.

I have still on hand four hundred copies of Dr. Seguin's celebrated *Report on Education*, which I will sell for the benefit of the Froebel Institute of North America, at 50 cents per copy. The book was originally sold for one dollar. It is a rich storehouse of new and fresh ideas on education. The proceeds of the sale go to the publication fund of the Froebel Institute of North America. W. N. HAILMANN, La Porte, Ind.

All who desire to become members of the Froebel Institute of North America will please send the annual fee of \$1.00 to the treasurer, E. B. Hunkton, Sup't. Blind Asylum, Louisville, Ky., or to the president, W. N. Hailmann, La Porte, Ind. Members are entitled to one copy of the Proceedings of the Madison meeting, a volume of about 200 pages, and will receive as a premium a copy of Seguin's celebrated *Report on Education*, donated for this purpose to the Froebel Institute.

IN our conversations with children, we should bear constantly in mind that words are but the *symbols* of ideas, and the latter but the shadows that things have left in our minds. Thus the same word designates in different minds countless shadows, varying in intensity and distinctness, made or left by the impressions of similar things. If I say *horse* or *good*, the child understands not *my* ideas of these things, but *its* own, which may differ much from mine. Our duty as teachers is to study the *child's* idea, and to devise ways and means for bringing it nearer to our own, which is presumed to be nearer the truth.

How often do teachers sin against justice and wisdom in the judgment of the child's failings! They say the child lies, when it speaks honestly under the influence of wrong impressions, or when in generosity or prudence it protects a friend or itself against a feared or hated foe. "Judge not" is the teacher's only safeguard against error in these things; his positive duty to study the child, and to *seek* the *good motive* that leads the child astray.

Nor long ago I saw a "kindergarten table" in which an exact square foot was ruled in square inches for each child. All around each square foot was empty table space, — forbidden ground, — and each little worker was isolated in its play from its neighbor's as completely as in a school-desk. I know of no other apparent following of Froebel that is so flagrantly opposed to his teachings than this. One of the specific purposes of the kindergarten, — the leading one, indeed, — is to teach the little children mutual love and helpfulness; to arouse in them that feeling of *belonging together* (*Fusammgehörigkeit*) which makes home "the dearest spot on earth to me," and which is a distinctive feature of ideal Christianity.

WHAT would you think of a gardener who should say, "The raspberry plant, on an average, comes nearest to my idea of what a plant should be; it has a reasonable amount of beauty, is vigorous, and fairly productive of useful and delicious fruit; hereafter all my plants, my roses and lilies, my violets and marigolds, shall grow up to be raspberries or be treated as weeds!" what would you think of him? And did you never visit a school or a kindergarten where the spirit of this gardener seemed to prevail? Why, will they not help the lily and the rose, the violet and the marigold, grow, each toward its own God-planted destiny of joy and benevolence?

KINDERGARTNERS should beware of playing and singing *for* or *at* the children. These things should be done *with* them. Whenever the children stare at you in pleased wonder or amazement, while you are performing a game *for* them or singing a song *at* them, you may be sure that you are blundering. The *visitor* may express delight with your liveliness and loveliness, but the children have derived no benefit from your work. Your business is to give them work to do, to teach them how to enjoy each other and give enjoyment to each other, but not to entertain them with feats of your own skill.

I HAVE seen kindergartners, again and again, *compel* their children to play, — order them to be happy, as it were. It seems to me that whenever a child is listless, we should look for the inner or outer reason of this listlessness. If the reason lies *in* the child, if it is weary or sick, or even the victim of evil heredity or habit, the reason should be respected, and met with suitable measures of *relief*. If the reason is external, if it lies in faulty surroundings, or in our own lack of skill or insight, our energies should be directed to the correction of these faults. But when you are tempted to compel a child to play, remember that compulsion, — *i. e.*, arbitrary compulsion from without, — would make a hell even of paradise, and would make even angels curse their fate.

THE kindergarten is no more a *system of education* than is the school. Who would ever think of asking whether the school is or is not a good "system of education"? There are good schools and bad schools, and good kindergartens, and if it becomes desirable to inquire into the condition of these institutions, well and good; but all possible inquiry will not solve the question, whether the principles upon which they are founded are correct or not.

The kindergarten, *per se*, is simply a means for applying certain principles. Froebel found these principles in the laws of Nature, — in its broad sense, including man. We may do this, — Nature is here, all around us, and we are in her midst, with eyes to see and ears to hear. But, before these truths can become evident to us, we must rid ourselves of the notion that they are mysterious or queer; that we must go through some strange process of mind before they will make their appearance. — *Bessie E. Hailmann.*

IT is generally true that what a healthy, normal child craves, it needs; also, that when it ceases to want a thing, it has had as much of it as it needs. On the other hand, it is also true that, without the guidance of a trained will, the healthful glow of interest and enjoyment may grow into a passionate desire, as often appears in the kindergarten. A child may become so fond of a certain occupation that he cannot bear to give it up. It is just here that the wise teacher may supply what the child needs, — a self-controlled will, — not by forbidding him to go on, but by gradually leading him to use his own self-control. — *B. E. H.*

THE best way to acquire a knowledge of anything is to throw one's self heart and soul into that thing, and this is exactly what the child does. This is one reason why children learn so rapidly, — they lose themselves wholly in their study; it is *play*. — *B. E. H.*

KINDERGARTEN ECHOES.

— *The Kindergarten and Drawing School Monthly*, published by Wm. Selby at Toronto, Ont., will act as the organ of the Froebel Institute of North America in the Dominion of Canada. The September number of this interesting publication contains, among other things, "The Truth About Elementary Education in England," by A. Sonnenschein; "Religion in the Kindergarten," by Bessie E. Hailmann; "Kindergarten Aims in Outline," by Miss McHenry; "Froebel's Principles," by Eleanor Heerwart.

— The following *new* members have entered the ranks of the Froebel Institute since Sept. 20th: Howard Sandison, Terre Haute, Ind.; Mrs. M. C. Still, Syracuse, N. Y.; Dr. E. B. Phelps, East Orange, N. J.; Joseph York, Meadville, Pa.; Hattie M. Miller, Goshen, Ind.; Lucy F. Morehouse, Big Rapids, Mich.; Charles Hoyt, Wyandotte, Mich.; William Selby, Toronto, Ont.; E. A. Sheldon, Oswego, N. Y.; Miss N. Cropsey, Indianapolis, Ind.; Emilie Kuhlmann, Emporia, Kas.

— Among the contributions for the establishment of a kindergarten at Blankenburg, where Froebel had opened the first institution of the kind, we notice ten dollars sent by Mrs. Amalie Spear, of Bridgeport, Conn. Others should follow this example.

— *Stickney's Primer*, published by Ginn & Company in the "Classes for Children" series, has a host of excellent points. It has been added to the books carried by the Froebel Institute.

— For circulars setting forth the objects, etc., of the Froebel Institute, send one-cent stamp to W. N. Hailmann, La Porte, Ind.

— The State Normal School at Emporia, Kas., has a Kindergarten Department; Miss Emilie Kuhlmann is directress.

— The Florence (Mass.) Kindergarten has ninety children, with seven trained kindergartners and one assistant.

— Training schools are getting to be as thick as hops, and just about as reliable in their crops.

A FORENOON IN A KINDERGARTEN.

[The following "program" of a morning's work in the kindergarten of the Toronto Normal School is taken from a letter addressed to me by the kindergartner. It may be in-

discreet to publish it here, but the "program" is so full, whole, and instructive that I cannot resist the temptation.—ED.]

1. Individual greetings, with news and expectations concerning the morning's work.

2. Opening songs: "Good morning, play-mates, one and all,"—"Good morning, good morning, Miss — —, to you,"—"Father, we thank Thee for the light."

3. March with piano accompaniment.

4. (Delsarte).—*a.* Rising on toes,—(climbed a mountain, looked over the sea, and saw a boat,— "I saw a ship a-sailing," etc.); *b.* Inhaling and exhaling, with vowel-practice and humming,—(orchestra and audience, one-half making the music, the other half applauding alternately). Here a little girl insisted on "Baby is a sailor boy"; so we climbed over mountain again (rising and falling); saw the baby with its mother in the boat, waved our handkerchiefs to them (decomposing exercise), and sang the song. They really seem to think I am having games; one little boy was very anxious to have the "little frog that tried to be as big as the bull," (inhaling and exhaling, and increasing and decreasing the waist).

5. Marched into occupation-room.

6. "Umbrellas" (with circular sheets and sticks), by special request of some little workers.

7. Colored sticks for houses, trees, and the like. (I drew a Christmas tree on the board with colored crayons, and put presents on for each child; they were in a state of delighted attention.)

8. Games: "Merrily, merrily"; "Equal measure," (cries of "Again!" "Just once more!") Guessing games; "Come, little leaves"; "Look at little Harry"; Marching with light calisthenics.

9. Occupation-room again: Colored dots, (very many made pianos and sang *doh, soh, me*; this is becoming very "popular" with the dots).

10. Ball game: Rolling "doh, soh, me," back and forth as we sang to them.

11. Back to play-room. Boat game: "Lightly row"; "Roll your hands." (We play this as a *Santa Claus* game. When they "go to sleep" they are my children in bed, waiting for Santa Claus,—myself again,—who gives presents. To-day it was a circular folding sheet to each for a parasol. While I go around I talk of all kinds of Christmas things. The children, of course, are in a kind of delighted trance until I arouse them with "All wake up!")

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12. Farewell: "Tis twelve o'clock." "Our play time is now over, and all our work is done."

KINDERGARTEN RHYMES.

[I am permitted to print the following contributions of Mrs. F. A. B. Dunning to Mrs. Hailmann's forthcoming "Games, Songs, and Rhymes."—ED.]

I. — OPENING SONG.

Merry, happy little children,
Morning finds us here once more;
Glad our joyous footsteps hasten
To the kindergarten door.

And within our pleasant play-room
Happy voices gaily sing;
Oh, the glad, sweet days of childhood
And the pleasures that they bring!

Morning light, so pure and rosy,
Paints for us the Eastern sky,
And 't will brighten all the journey
To the sunset, by and by.

II. — GOOD MORNING.

Good morning, pleasant sunshine,—
We are glad to see you here;
Without your loving presence
The earth would soon grow drear.

Come right into our play-room
And help us in our play;
You are a welcome playmate
At any time of day.

III. — THE CARRIER DOVE.

A carrier dove is waiting near,
For the message she (he) will bear
To the little friend to me (us) so dear,—
I (we) will trust it to her (his) care.

Lightly she'll (he'll) raise her (his) gentle wings,
And fly away through the air;
My loving word to the home she (he) brings
Of the friend who is waiting there.

IV. — THE EARTH AND THE CLOUDS.

The thirsty earth one summer day
Looked to the clouds so far away,
And said: "The rain and drops of dew,
Have left me now to go with you;

My flowers are drooping, fields are dry,
My pretty grasses withered lie;
Oh, send to me the pleasant rain,
That you may see me smile again."

The gathering clouds drooped very low,
A gentle breeze began to blow,
And "patter, patter" came the rain
That made the dear earth smile again.

V. — PLAY OF THE LAMBS.

Have you ever seen the lambs at play
In a grassy field at close of the day?

First a little leader steps bravely out,
Who surely must know just what he's about.

With a hop, hop, hop, and a skip, skip, skip,
He shakes his white fleece, and gives his head a dip.

Then he leaps and he bounds, and he then skips away,
While the rest all follow his beautiful play.

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— "Does your family play ball?" was asked of a little shaver. "Me and mother does," he replied. "I bawl and she makes the base-hits."

— Scene, or rather heard, on a Lowland horse-car. Conductor: "There ain't no seats, ladies, unless you want to stand." One of the ladies: "Well I won't ride if I've got to walk."

— "The matter is that the thing is full of moths." "Mots! do you say?" indignantly responded the dealer. "Mots! Vot do you expect to find in a seven-dollar overcoat? Humming-birds?"

— Mamma: "Look, Sissy, here is the dear doctor coming! What a favorite he is! See, even the little chickens run to meet him!" Sissy: "Yes, ma; and the little ducks cry, 'Quack, quack!'"

— Tired grandmamma (to Harry, aged four): "Oh, dear, your poor old grandma's almost worn out, Harry." Harry (inquiring of parent next day): "Mamma, shall I have a new gram'ma when the old one's wore out?"

— *The Progress of a Generation.*—First Gentleman: "I beg your pardon, sir, but is not your name Smythe?" Second gentleman: "No, sir; my name is Smith. You have evidently mistaken me for my son."

— "Do you think you can clear him?" she asked of the lawyer. "I don't know, madam," replied the attorney, doubtfully. "He has lived here all his life, and knows every one." "Yes, that is what makes me nervous about it."

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— "How much for candy?" asked a little boy. "Six sticks for five cents, eh? Now let me see; six sticks for five cents, five for four cents, four for three cents, three for two cents, two for one cent, and one for nothing. I'll take one stick, mister." He got it; but the dealer is still in a state of bewilderment, and can't see how that can be.

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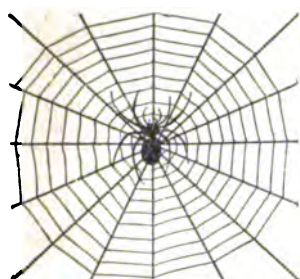
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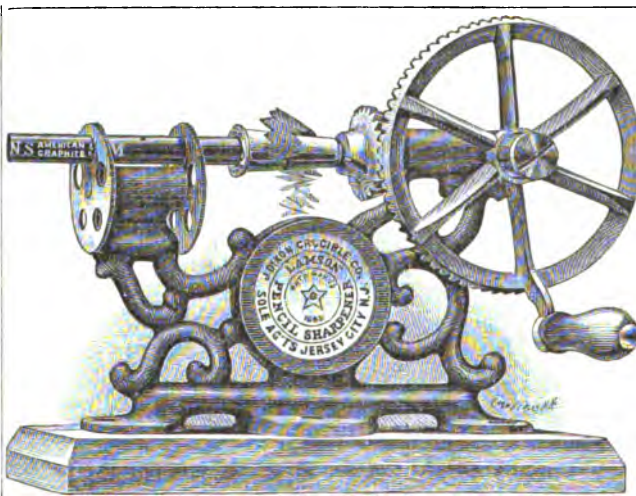
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EDITORIAL NOTES.

WE desire to recognize with gratitude the generous support and encouragement we have received from the teachers and friends of education in all parts of the country, in our efforts to advance the interests of elementary instruction during the year 1885, through THE TEACHER.

Its circulation has been steadily increasing, and its usefulness, we trust, has kept pace with its growth. As we enter upon our work for the year 1886, we would tender to all our patrons and friends the compliments of the season, and greet the teachers and pupils of the common schools of the land heartily, and wish them one and all a "Happy New Year."

With the opening of the new year our readers in all sections of the country can give us their most acceptable greetings, and stimulate us to do our best work for the cause of elementary instruction, by sending us one or more new subscribers to THE TEACHER for 1886. For every new subscriber for the year we will send one of our life-size portraits of eminent educators (size, 20 x 24 inches), including Horace Mann, Geo. Peabody, Barnas Sears, Louis Agassiz, John Eaton, A. D. Mayo, J. D. Philbrick, F. W. Parker, or William T. Harris, to the person sending us the name of the new subscriber with one dollar. This will be our New Year's present to each of our friends who thus recognize our efforts to make THE TEACHER the most practically useful educational paper in the United States.

HOW TO EDUCATE FUTURE JURYMEN, in the schools, is a question of great importance; and yet we fear it is little thought of by teachers in training pupils for the active duties and responsibilities of life. Boys and girls, even when very young, can be educated to pronounce judgment on questions of right and wrong. Under proper conditions, the moral judgment may be trained by calling upon pupils to pronounce upon the conduct of their companions and made to feel that they are responsible for a just decision. The judicious teacher can often appeal to pupils, in good faith, in regard to awarding commendation, or in pronouncing a penalty; and their keenness and honesty in giving their verdicts will often surprise him. By similar methods valuable lessons in practical morality and in the exercise of personal judgment may be taught that will prepare them to act in future life in the jury-box.

HOW TO TALK TO YOUNG CHILDREN. — It requires more than ordinary wisdom and tact to conduct a profitable conversation with young children. The topics should be carefully chosen with a definite purpose in view. A good "talk" requires a good subject and an accurate use of language. The style should be inspiring and cheerful, and may often aptly illustrate the definition of *humor* which Miss Thackeray repeats from the lips of a lady friend: "*Talking in fun while thinking in earnest.*" Such "talks" often have a surprising effect, stimulating thoughtful questions and arousing the dormant faculties of children, and leading them into new fields of observation and thought; even playful conversations should have an

element of moral dignity associated with them on the teacher's part; the language should always be pure, grammatically correct, and free from vulgarisms or slang phrases. The example of the winsome teacher is contagious; good habits of expression will have an elevating tendency, while loose, inaccurate, and carelessly chosen words in conversation will counteract much of the good work done through language lessons in the class-room. Remember that "talking" wisely is a "fine art," and must be practised constantly to give the highest effect, even when accompanied with genius.

TWELVE years ago Prof. Louis Agassiz, "Teacher," died. He was one of the most enthusiastic students of nature the world has ever produced. He has had no peer on this continent, and no superior in Europe in scientific research. His superior genius was most strikingly shown as a teacher, of which title he was proud. He was identified with the educational and scientific interests of this country, and delighted in presenting his vast knowledge in popular lessons and lectures to the educators of his adopted country. His life and correspondence, as edited by his wife, Mrs. Elizabeth Cary Agassiz, and published by Houghton, Mifflin & Co, Boston, is the most important contribution to the literature of science that has been issued the present year. In the study of correct methods of teaching, this work is invaluable to the teacher.

HOW TO TEACH should be the constant study of every teacher who aims to make his work the means of accomplishing the greatest good. The mental and moral development of the pupils is best secured by subordinating all the necessary means and methods to the great ends of educational work. The pupils should be daily trained to correct habits of observation; to foster those feelings and emotions that tend to build up strength and integrity of character; so to think and act that they will become useful members of society, defenders of what is worthy as citizens, and perpetuate the faith and good works of the fathers of our honored republic. No teachers, however humble their positions, can neglect this all-absorbing thought and not prove themselves recreant to duty and unworthy of their high vocation.

IN THE AMERICAN TEACHER for December, 1885, in the kindergarten department, Mr. Hailmann, the editor, criticizes the translation of Fröbel's work, *The Education of Man*, by Miss Jarvis. Knowing as we do the earnestness and sincerity of Mr. Hailmann's efforts in behalf of the kindergarten work in this country, and his admiration of the principles of Fröbel's system, we feel assured that his criticism was based upon his honest convictions. Notwithstanding this we gladly allow the author of the translation to state her side of the question. She says:

"In translating Fröbel's works I have endeavored to give as accurate a translation as is compatible with English idiom. Where the English word given in the German dictionary seemed insufficient

or misleading, I have taken that synonym which best conveyed the meaning. Where the meaning was ambiguous, I have been determined in my rendering by the context to which I refer those who read the book, and who will, of course, desire to form their own judgment."

Miss Jarvis further states that she regards the criticism, in most of the citations, unworthy of notice, and questions the entire "loyalty to Fröbel of one who would recommend that, in future editions of *The Education of Man*, all on the pages from 160 to 268 be omitted, as these pages contain 'Fröbel's practical application of his philosophy to *The Education of Man*.'"

SYSTEM in daily school work is absolutely essential to the highest success. The pupils should know the order of daily recitations and the exact time when they are to occur. This requires that the teacher should have a carefully prepared program for each day. It should provide for the opening and closing exercises, for intervals of physical exercise and recreation, recesses, and all intermissions. It is always wise to provide for a period of study in each branch immediately prior to the recitation. When "home lessons" are assigned (there never should be any with children under ten years of age), the first recitation of the day should be on that lesson. The teacher should always provide in her daily program for time to give the pupils proper aid and help in the preparation of their lessons. Any deviation from the well considered order of daily work, even for visitors, should be avoided. The temptation to vary is sometimes great, but it should, as a rule, be conscientiously guarded against.

SUPT. COLE, of Albany, N. Y., recommends a most excellent practice of having "morning recitals," in the elementary schools, of gems committed to memory. He says: "Have the children give the name of the author, his birthplace, and state some work he has written. By committing to memory eight or ten lines each week, the teacher carefully developing the thought of the passage and perfecting the delivery by concert drills and individual recitations, the pupil will have acquired in a full course of our primary and grammar schools not less than 3,000 lines of the choicest names of literature. By requiring the name of the author to be pronounced at the close of each quotation, the child will become familiar, at an early age, with the names of very many of our greatest writers. What sources of inspiration to lofty and noble deeds, what fountains of high moral principles, these exercises might prove! What safeguards they might become in warding off the insidious influences of the dime novel and the sensational weekly!"

THE ART OF TEACHING was never so progressive as to-day. The teacher who has any disposition to sit back sulkily while the profession advances, makes a mistake from which it is not easy to rally. It is not that everything new is worth adopting, but there is so much wheat in it that no one can afford not to sift it.

PRIMARY ARITHMETIC.—(I).

BY JOHN B. PEASLEE, SUPT. SCHOOLS, CINCINNATI, OHIO.

In an article that appeared in *The Primary Teacher*, some three years ago, I explained, by means of *wire* and *balls*, the method in use in the Cincinnati schools of teaching addition and subtraction to primary classes; but as the desks of very few classes are supplied with wire and balls, it is important that I should explain the several steps of the first year's course by the use of small sticks or lamp-lighters. In doing so, however, I will vary the work a little,—first, by supposing the sticks to be placed at the *left* side of the pupil; second, by first moving the smaller number instead of the larger; third, by combining the three operations of addition, subtraction, and the resolution of the number into parts, instead of completing each separately as in the article referred to above.

1. EXERCISES WITH OBJECTS.—Let us suppose the teacher has provided herself with a sufficient number of small sticks (ten for each pupil), and that the lesson is to be given on the number *five*. The teacher will distribute among the pupils *five* sticks each, which they will place together at the left in front of them. The pupils then, placing the fingers of the right hand on the right-hand stick, and the fingers of the left hand on the four others, move the right hand stick three or four inches to the right, and, without removing the fingers, say "*one stick*"; then, bringing up the four sticks with the left hand, they say "*and four sticks*," and just as the sticks are brought together they say "*are five sticks*," (one and four are five); then, after a short pause, and without removing the fingers, they say "*Five sticks are*," then separating the sticks by moving *one* to the right and the others to the left, they say "*one stick and four sticks*," (five are one and four); then bringing the sticks together again they say "*Five sticks*," and as they begin to turn the right-hand stick toward a horizontal position they say "*less one stick*," and then, pushing the stick to the top of the desk, horizontal with it, and bringing the hand back to the remaining sticks, they say "*are four sticks*," (five less one are four). Now reverse the operation by moving first *four* sticks and then one stick (four and one are five, five are four and one, five less four are one), and so forth with the other integral parts of five. The pupils should practice the foregoing operation until they can perform them with accuracy and rapidity. At first they should name the objects; then, dropping the names, they should give the numbers only as they move the sticks: thus, four and one are five, five are four and one, etc.

2. PRACTICE IN SOLVING EXAMPLES RAPIDLY WITHOUT THE USE OF OBJECTS.—In teaching examples in abstract number, the form of the question should be varied as much as possible.

ADDITION.

Four and one *are* what?*Ans.*—Four and one are five.

Four and one are how many?

A.—Four and one are five.Four and one *equal* what?*A.*—Four and one equal five.

Four and one equal how many?

A.—Four and one equal five.Four *plus* one are what?*A.*—Four plus one are five.

Four plus one are how many?

A.—Four plus one are five.Teach the sign *plus*.

Four and what are five?

A.—Four and one are five.

Four and how many are five?

A.—Four and one are five.Begin with *one* instead of *four*.

One and four are what?

A.—One and four are five.

One and four are how many?

A.—One and four are five.

Begin with *two* and then with *three*, and proceed in the same manner. Of course, after a short drill in answering in regular order, the questions should be given out promiscuously.

A good concert exercise for a brief drill at this stage of the work is to have the pupils answer the question, What are five? To this question each child must answer in regular order, and according to a specified form, either by beginning with the largest integral part of five, which is four, and saying "*Four* and one are five," and the reverse, "*One* and four are five"; then "*Three* and two are five," and the reverse, "*Two* and three are five,"—or, by beginning with the smallest integral part, which is *one*, and saying "*One* and four are five," and the reverse, "*Four* and one are five"; then, "*Two* and three are five," and the reverse, "*Three* and two are five."

Again, What make five?

Ans.—Four and one are five.

One and four are five.

Three and two are five.

Two and three are five. Or,—

One and four are five.

Four and one are five.

Two and three are five.

Three and two are five.

RESOLUTION INTO PARTS.

A few suggestions on resolving number five into any two integral parts:

Five are four and what?

A.—Five are four and one.

Five are four and how many?

A.—Five are four and one.
Five are what and four?

A.—Five are one and four.
Five are how many and four?

A.—Five are one and four.
Five are three and what?

A.—Five are three and two.
And so forth.

Five are what? *Ans.*—Five are four and one.
Five are one and four.
Five are three and two.
Five are two and three.

Another good exercise is to have the teacher name some number, as five, and then give the several parts promiscuously, requiring the pupils to give the other parts, thus: The teacher says to the child, "I will give one part of five, you give me the other part." Teacher says, "Two"; the child answers, "Three"; teacher, "One"; child, "Four"; and so on.

[To be continued.]

GENERAL EXERCISES.

BY KATE H. BELCHER,
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There should be two parts to a general exercise that occurs in the middle of a session. The first should be a rest, and the second an exercise. The object is to refresh the children in mind and body. To relieve the strain upon their minds, let them do something they very much like. To put new life in their bodies, give their little lungs a thorough *house-cleaning*, and get the blood to circulate quickly.

There are many ways to accomplish these two objects. The trouble is, we often imagine we have succeeded, when we have done nothing of the kind. Is sitting erect, with folded hands or arms, listening to recitations or singing, a rest for either mind or body? Sometimes it is, and sometimes it is *not*. It depends upon how it is done. If the sitting erect is a change from their former position and not kept up too long, it is a good thing. If not, it is bad. If the singing is done *properly*, with *proper breathing* and *proper air to breathe*, this also is good. If not, it is *very* bad. If the listening to *anything* is alternated with active exercise, even though it be such a little thing as clapping their hands at the parts they like, this is good, and our object partly accomplished.

"But," said a teacher once, "if *my* boys are to be *pleased*, none of *these* things will do. They haven't that kind of temperament."

"Don't they like the singing or marching?"

"Far from it. There are always some too lazy to sing, and some who have no voices."

"Well, what do they like?"

"Oh, to turn around and laugh and whisper. I have a perfect battle, every day, to keep them from doing these things in general exercises."

Then let them *do* it. Since this will rest their minds from the strain of constant attention to work and fill their lungs with fresh air, why not devote a small part of the general exercise to this very turning, laughing, whispering and listening to their neighbors? At the end of the minute or two they will be all the more willing to lend *you* their ears. One thing must be guarded against. This should never be done in a badly ventilated room, or they will become excited and unmanageable. This liberty is *shocking* to the eyes of visitors. But who cares? *The school is carried on for the children and not for the sake of teachers and visitors.* And the children will certainly feel under more obligation to give careful attention while engaged in any exercise that you think well to give them. It is mean, if, because they are little and we are their teachers and have them in our power, we take our own way all the time. They are sometimes better judges than we about what will rest them the most. Besides, afterwards, when we give them an exercise, we can ask with a better grace for their undivided attention. Taking this for granted, let us suppose that the second part of the time is to be allotted to rote singing, as it so often is.

It is not yet out of date for whole schools to bellow away, song after song, regardless alike of throats and ears. This is such an unnecessary outrage and allowed in many schools where everything else is well looked after, that it is a matter of constant surprise. Go in the nearest school at hand. Listen to the children singing and notice how they do it. Are they breathing pure air? Do they *fill* their lungs with it, or only take a sample? Do they open their mouths or warble through their noses? Do they keep their shoulders still, or raise them at every breath? Is their singing sweet or harsh? Do they sing good music or bad? Is their taste being cultivated or not? A score of questions might be asked about the poor, neglected rote-singing, that is never subject to the terrible examinations, and in many schools the answers would be unfavorable.

Perhaps you may ask me if all this is so very important. "Do they come to school for this singing, or is it designed as a rest from their other studies? I can only say this: If *how it is done* is not considered important, it should be. When they sing with enough breath, and know how to use it, they not only produce a better tone, but they develop their lungs in the very best way possible. Since every one knows how the health of body and mind depends upon the lungs, it is astonishing to think how little attention is given to their proper use and growth. To be sure, we often hear the injunction, "Don't sing so harshly," but seldom are they told how to avoid it. Sometimes they

are told to sing softly, but this is not at all necessary. Of course, soft singing is very beautiful and should be the rule, but still the tone *may* be loud and yet not harsh, if they have enough breath to sing with and know how to use it. How to get them to do this must be the subject of another paper, but certain it is that no general exercise is a complete success that does not replenish all the rooms and all the lungs with fresh air. Nothing accomplishes this like singing in a well ventilated room, if it is done in the proper way. Therefore is it so important.

Hear what Emerson says regarding fresh air: "*Ah, if you knew what was in the air! See what your robust neighbor, who never feared to live in it, has got from it,—strength, cheerfulness, power to convince, heartiness, and equality to each event.*"

THE GARDENER'S PLANTS.

BY EDWARD A. RAND.

The fires at the hot-house must be unusually active; from the chimneys, large wreaths of smoke are floating upward as if those sooty pipes had forsaken their usual vocation and were ambitious to decorate the azure walls of the sky with wreaths and scrolls and various attempts at arabesque work. The garden below is innocent, though of any purpose to turn his chimneys into brushes with which to paint the sky. An immense wedding, a festival, of a big city,—order for floral wares at a specified date, will oblige him to crowd the fuel into his furnaces, and if possible he will force his reluctant plants into blossoming. The tardy geranium buds, and those of rose, lily, and heliotrope, will begin to swell. In the green calyx there are promising splits. Streaks of white, scarlet, purple, and gold begin to show themselves. They are rays of color that anticipate the dawn soon bursting from its hiding-place, and lo! in the hot, steamy conservatory how many gay floral suns show their bright faces! The gardener forces his plants. We can't always do that in those conservatories where souls, and not plants, are the objects of care. Granting that sometimes we may be gardeners who can fittingly crowd our furnaces, it will need a wise head to determine those occasions. We would avoid mistakes in the application of the force,—principle. It would be very unwise to try his method on the minds of our scholars. The bursting of the bud in this case may be of that very unfortunate kind where rupture is ruin. So in school administration, there may occur emergencies when the forcing process is the last in the world worthy of trial. In individual cases there may be peculiarities of temperament in the school, and idiosyncrasies in his mental make, that can only be met wisely and successfully by the teacher that has patience and is willing to,—wait.

Here is a boy who is anxious to learn. His disposition is of the best kind, so desirous is he to succeed in scholarship. He is patient in study. He grips his books and holds on to them hour after hour. He is a slow traveler, though. It is the snail crawling, and not the hare leaping. Besides, he is sensitive to ridicule. He keenly felt any discouragement yesterday, and he has little heart with which to meet the lions of to-day. If you drive the fires, if you force the buds, the boy is thrown into bewildering perplexity, and at last into despair. Wait; gently stimulate. Be patient with his mistakes. Notice with praise his successes. He will steadily, safely, surely ripen in this wise, kindly sunshine. Here is a difficulty in a school that is rooted in an opinion popular in the community. The very habits of father and mother may make nourishing soil for the scholars' wrong ideas. You begin to sow the scholars' minds with your thoughts. Those minds make guest room for your ideas, and there is a conflict between the new and the old. If you crowd the furnace-fires, there may come a development that will be a ruinous rupture. If you are patient, if you can wait for the growth of a thing as well as have courage to plant it, you will see ripeness that comes in an orderly way. The sun is on the side of patient culture, and when you combine patience and sunshine, there will be a harvest. A change will take place that will be a reformation and not a turbulent revolution that will upset things generally, and one of its particular results may be the revolving of the teacher out of school. The conservatory fires are still blazing, and the smoke from the chimney's mouth makes its brown tracery along the sky. Below, geranium, rose, lily, and heliotrope are swelling and straining to get out of their green prisons. Somebody will doubtless be grateful to the gardener for forcing his plants, but let us be careful how we repeat his methods in the school room.

TENS AND UNITS.

BY EMMA D. SCHNEIDER, NEWARK, N. J.

In a former paper, published in the *AMERICAN TEACHER* (September, 1884, we have shown that children may learn, not only how to write correctly numbers containing tens and units, but also, and at the same time, the "reason why" of our system of numeration.

Our class of little ones, just beginning the long, and too often, alas! terrible siege known to them as "Rithmetic," had passed the first stage,—viz., writing and learning numbers as far as nine,—and were attacking and conquering the second great enemy, "Tens and Units." They learned that the numerical 10 was not *figure* 10, but a combination of figures, written in a particular way to show them that they have one *ten*, and no *ones* besides; that *twenty* meant 2 *tens* and 0 *ones*, and

so on, up to 9 tens,—90— If the children took ten objects and then 1 more, they were shown that it was written 1 ten and 1 over,—1 ^{ten one} 1,—and was called eleven; that 2 tens and 1 are written just like twenty, except that a figure 1 must be placed at the right of the 2, instead of figure 0, and that it is called twenty-one.

In a similar manner all the numbers, to ninety-nine, were taught, the children learning the *reason* for the place of every figure. They were taught, also, that a *one* was sometimes called a *unit*, and the terms *units* and *ones* were interchanged until the idea of so many *ones* was brought up whenever the word "units" was spoken.

It must not be supposed, however, that the children's studies in arithmetic have been confined to this subject. We have assumed that daily exercises at the number-table, drilling the children in all the combinations of numbers, gradually increasing from nine to twenty, are given with practical examples, using the four fundamental rules; and exercises, principally oral, using money, weights, and measures.

They have been learning tables, and when they have become perfectly familiar with the addition-tables up to about twenty, and have learned by the method previously described to count and write numbers up to ninety-nine (for which, by the way, the numeral frame, or abacus, consisting of ten wires, with ten balls on each wire, is an almost indispensable adjunct), they are ready to begin simple work in adding two columns. This will be about the second year of school-work, where the "Quincy" or "Grube" methods are used. When only addition is taught, at first it will of course be sooner.

Let us visit the school-room now. The children are gathered about the blackboard, or number-table, and are to have their first lesson in "column" addition. We will listen to the teacher and pupils, and hear what they are saying.

Teacher.—If I have 8 cents and John gives me 2 more, how many cents have I?

Children.—10 cents.

Tr.—8 cents and 2 cents are how many cents?

Chn.—10 cents.

Tr.—Who will write that on the blackboard in figures? Johnny, you may.

Jno. (writes).— $8 + 2 = 10$.

Tr.—Who will write it another way? Mary may come.

Mary (writes).— $\frac{8}{10}$

Tr.—Right. Now who will write, in the same way, what 12 blocks and three blocks are?

Some one will perhaps write $\frac{12}{15}$ or even $\frac{12}{15}$

Tr.—That is not quite right. Tell me what the 1 in the 12 stands for.

Chn.—One ten.

Tr.—And the 2?

Chn.—Two units.

Tr. (pointing).—Does this 3 stand for 3 tens or 3 ones?

Chn.—3 ones.

Tr.—Then we must put it under the 2 ones, so as to show plainly that we do not mean 3 tens by it. Now, Jennie, write what 11 and 4 are, in the same way.

Jennie writes, $\frac{11}{15}$

Tr.—Now take your slates and write in the new way $10 + 5$, $11 + 3$, etc. (as far as they have learned).

This practice should be continued for some time. The children should frequently be questioned as to *why* the single figure is placed at the right, and they will soon learn to say (and if taught properly, to say understandingly), "Because that is the units' place."

DRAWING FOR VERY YOUNG CHILDREN.

III.

At a third lesson small, oblong, white cards and lead pencils are used. Light weight card-board, or stiff drawing paper cards, five by three and one-half inches are preferable. The children draw from memory a picture in the upper right corner and its opposite, similar to those of the preceding lesson. Individual pupils will name their own pictures, and very droll names, sometimes, they will be. My pupils have drawn "black aggies," "taffy drops," "chocolate creams," etc.; so long as the interest is held do not mind the queer naming. At this lesson begin to attend to pencil-holding. It is not wise to talk about it; simply place your hand over each child's and gently press the fingers into a good position. If your class is large divide it, and care for one division daily, alternating each day of course. Constant repetition will eventually bring the fingers into the desired position. Occasionally draw the pencil away if you think a child is clinking it, and bid him draw gently. A teacher cannot be too careful about the manner of holding the pencil. Just here, and now, the foundation for slate and lead pencil and crayon use in drawing is being laid; also careful and correct handling of the pen in writing, and brush in painting. Bad habits easily formed are not so easily overcome, therefore it is wise to begin to guard against them as early as possible.

IV.

Return now to the slates. Prepare beforehand ring outlines in each corner. Direct the children to fill in these outlines and give names to the completed "roundy things." The entire work must be done by opposites, the class working simultaneously; this insures close attention, slow, uniform arm movement, and a better quality of work. Those who do the nicest slate

work may be allowed to repeat the forms upon paper to carry home. It is very helpful to a teacher to establish a home interest in school work in this way.

Persist, in this lesson, in placing the pupils' fingers in less cramped positions; occasionally draw the pencils away to test the degree of tightness with which they are held. Continue this filling-in work, varying the position of the ring outlines often, until at least three-quarters of the class do not *clinch* the pencil. In this way an easy, sliding hand and arm movement will be developed, which will be appreciated when the writing period arrives.

V.

For convenience this lesson is numbered five; but between it and the fourth I may have repeated previous work many times with slates and papers. However, presupposing the class in a condition to advance, prepare beforehand by cutting lengthwise into thirds a twelve-inch white splint, such as one uses in giving primary number lessons, to be used as an embodied line. Slates and pencils being ready, proceed as follows:

"Children, would you like to guess, to-day, what I have in this book?"

Many surmises there will be, of course; so lead the class on till attention is gained and curiosity awakened, then taking from my book one of the thirds of the splint I hold it before the class and ask, "You did not think I had this hidden in my book, did you? Does any one know what it is?"

"It looks like a long match," and "It looks like a stick," are the answers given."

"Yes, it is a stick, and I should like some one to tell me something about this stick."

"It is a thin stick, and it has two ends," Joe volunteers.

"You are right, Joe. Can you tell me what one end of the stick is pointing toward?"

"Yes, Miss Grace; it's looking up toward the ceiling."

"Class may look up; Nellie may point up." After the whole class has pointed up I add, "One end points up; now can any one tell me what the other end points toward?"

Joe exclaims, "At the floor!"

"Where is the floor, Joe?" I question.

"Under us, Miss Grace."

"Then, class, if the floor is under us, the end of the stick which I am touching does not point *up*, does it?"

"No," is fairly shouted by all, "it points down."

"Fred, please tell us, nicely, about this end of my stick, which I am touching."

"The lower end points down," Fred answers.

All having pointed down, I ask, "Who will tell us about the ends of my stick?"

Teddie informs us that "one end points up and the other points down."

"All point up and down. Now, children, if this stick points up and down, what shall we name it? You know everything has a name."

Bright Deedie names it "an up and down stick."

Having developed the desired term to be applied to the embodied, line I ask, "Would you like me to draw a picture of this stick for you?" Of course the proposition pleases the children, and, after slowly drawing a vertical line upon the board, I direct the class to imitate the blackboard work. Allow but one line to be drawn; examine each slate and commend each pupil, if not for nice drawing, for at least trying. M. E. C.

HINTS TO TEACHERS.

BY EVELYN S. FOSTER.

Shoe-Pegs.

Do all the teachers know what pretty pictures the little folks can make of shoe-pegs? Many probably do; but as the idea was new to me until I saw it carried out, recently, in the school of a friend, possibly it may be new to some others. I knew the children had much pleasure in forming letters, words, and in solving examples with shoe-pegs; but when I saw them making pictures with the bits of wood, it was a surprise. One child had made a rake, another a broom and dust-pan, a third a tree, while another had made an immense sunflower, almost as broad as his desk. The favorite picture seemed to be a flower-pot, with a thriving plant growing in it. "I have other contrivances for busy work," said my friend; "but those shoe-pegs are the most successful; they never fail to please."

Half-Merits.

Many teachers give to their little pupils, who have been good children during the day, a merit. When the child has earned ten or twelve merits, these are returned to the teacher, and a card that is to be kept is given in exchange. The objection to this custom is this: If temptation proves too strong for the little pupil in the morning session, he is apt to think there is no use in trying to be good in the afternoon, since he has lost his merit. When he goes home at noon, he is apt to think it will be a long time before he can try again to earn a merit, for a few hours seem as long to a child as a few days to his teachers. The child naturally becomes discouraged; the afternoon is no happier than the morning, and if the whole day is a failure, there is no bright promise for the next. To remedy this difficulty are the half merits, half the size of the whole merits, and of a duller color. When the child has earned two half-merits, he can exchange them for a whole merit, and so receive a short object lesson on fractions, as well as a reward for well-doing. Some one has said, "The glory is not in never falling, but in rising every time we fall." Blessed half-merits, if they can help the children to rise quickly from their naughty deeds to good endeavor!

THE FIRST USE OF PEN AND PAPER.

[Translated from the *Magazin für Lehr-und Lernmittel.*]

This subject has been repeatedly agitated, but seldom thoroughly discussed. It seems, therefore, imperative that it should be broached again in the light of practical experience. The aim of instruction in writing in the public school is to enable the child to write an essentially correct and pleasing hand. In order to attain this end, in intermediate and primary classes, keeping time in writing is recommended as a valuable aid. All exercises,—writing, especially,—are made easier by being done in rhythm. Learning and practice go together.

The results attained in writing will be much more satisfactory if the slate is avoided and the writing is done from the first on paper. In this way the scholar's handwriting gains perceptibly in fluency and attractiveness, and writing can be applied to other kinds of lessons much earlier. Writing with a slate pencil is altogether different from that with a pen. This is evident if paper is put in the place of the slate. Many scholars who wrote very well with a slate, surprise their teachers by their lack of skill in handling a pen; while others, contrary to expectation, overcome the first difficulties with little trouble. Where shall we look for the cause? Doubtless it is in the use of the slate-pencil. A certain expenditure of strength was necessary in order to produce light and shade on the hard slate. The child became accustomed to this manner of writing, and now observes with surprise that what was before necessary to obtain good writing,—viz., pressing down,—is now a disadvantage. It is weeks, or even months, before the mistake is set right.

Good hand-writing is, in a great measure, dependent on the manner of holding and handling the pen. This fact makes it necessary for the scholar to carefully observe the directions of his teacher, not only in the class, but when he is preparing his exercises at home. He must work more intelligently and accurately than is required in using the slate-pencil. If the latter is held only somewhere near right, the result is still good.

The school must train the child to take pleasure in everything that is beautiful and elevating. The sense of beauty must be developed to the utmost. Everything hurtful to it should be removed. But drawings and figures often appear on the slate which are of little help in this direction. The scholar, however, can easily avoid a reprimand for the mistakes he makes. A rub with the sponge or with his finger, and the slate is clean again. He will make only one or two attempts to remove the letter or blot he has carelessly made with ink. The marks that are left teach him that industry and attention are essential in this kind of work.

Even the best handwriting makes a disagreeable impression if there are mistakes in spelling in it. Scholars,

therefore, should be taught as early as possible to spell correctly when they write. It is not enough that the child should write; what he writes must be a part of his mental possession. Therefore, the correct form of the word should be placed before his eyes until he has become accustomed to it and retains it. This end will be most surely secured by repeated, attentive writing of the same word. The time required for such exercises may be found in the primary classes, if lessons in writing and spelling are combined. As soon as the separate letters have become familiar, the writing of words may be begun, grouped according to certain orthographic principles. Each group, containing about ten words, should be practiced for half an hour, or an hour if necessary. For making the copies words should be chosen with somewhat difficult combinations of sound, and also some of the easier forms of verbs.

If these suggestions are followed in setting copies, and only paper and pen used to write with, the scholar will have attained such facility in their use by the end of the first year, that half an hour, or an hour at most, a week will be sufficient for special lessons in writing. The rest of the time set apart for this subject can now be chiefly devoted to spelling. This will be a great advantage.

"Return often and cheerfully to the rudiments." Time and opportunity are now offered for this. Repetition of the old will be united in a useful manner with learning the new. Most of the words practised up to this time can be clothed in sentences, as far as this has not already been done,—brought before the child's eye again and practised over. By means of this delay at the very start, the teacher will avoid the disagreeable position of having to complain of small progress and lack of interest on the part of his pupils. In order to obtain the result hoped for from this system, there must also be a regular course in prescribed exercises. The child must know how to set himself about his task, even in details; he must be able to fix the pages, covers, and lines of his copy-book, according to their respective positions. Then the method of writing by time can have immediate application, because blotting and smooching the copy-book can only in that way be avoided. At the order, the pupil dips his pen in the ink; at another, he begins making the first stroke; at another, he takes it away. During the first six weeks this method should only occasionally be relinquished; therefore the teacher should always be in his place. The writing hour requires his whole attention and strength. But the first difficulties are hardly overcome before the fruits of intelligent labor appear. The writing daily becomes more fluent and more pleasing. Light and shade are given to each letter in the right proportion, and soon the lines look so well that it is a pleasure to see them.

The reasons which may be brought forward against

the use of the lead pencil are partly the same as those which make the use of the slate-pencil undesirable. At all events, writing with a pen is not helped by the preceding use of the lead-pencil. On this account the slate should always be retained whenever writing has not been done from the start with ink. Still it would be well for all schools which can meet the very slight expense for the slate and pencil to be supplanted by pen and ink.

CHATS ON WAYS and MEANS of TEACHING.

BY ANNA B. BADLAM.

LANGUAGE.

A visitor asked the question, the other day, "How much do these children study?" At first the question seemed absurd, considering that the children are only upon the second year's work; and I answered, "*None at all*, if you mean by studying, taking a book and committing to memory the text of any lesson; a *great deal* if you mean by studying, the concentrating of the thought upon any subject. For instance I would not think of giving these children a spelling lesson to study, in the ordinary sense; yet I do believe that they must gain the power of giving undivided attention and undisturbed thought to any subject."

I have been thinking over the matter since, in order to discover just what exercises are helpful in giving the children this power, and I find that there are many that can but discipline their young minds. The habit of looking through the sentence in reading before reading aloud, which is one taught the child in the earliest stages of his school-life, is perhaps the first step in the direction of quiet study. The building of words, where the child is told to *think the sounds* and thus discover the *word* they form, must strengthen this same habit of quiet study. While certainly the varied lessons in number, where the attention of the whole class is directed to the different groupings employed to make any number, as 9, must all lead to the same result. The children will be *unconscious* of any *study* of the subject, as their little minds are carefully guided by the teacher; yet the *habit* is forming.

As a step beyond this, when we would bring *memory* to our aid, any simple exercise may serve the purpose. For instance, the little slips with a single word written on each may be given to the children, who are told to put the words into sentences (that they may be used correctly); to notice the letters used to form the words, and then, with the slips turned face downward, to spell the words. For this year's class, as a step in advance, I have written two or more words on a slip. These words consist in some instances of opposite terms, as,—

fresh	thick	deep	rough
stale	thin	shallow	smooth

Of the present and past tenses of verbs, as,—

came	blow	read
come	blew	read
think	catch	throw
thought	caught	threw

Of words pronounced alike, but of different meaning, as,—

their	blue	knew
there	blew	new
pail	pane	hear
pale	pain	here

These words give an excellent language-lesson, fixing the correct use of such words as *catch* and *caught*, *throw* and *threw*, naturally and permanently, while the correct spelling of the words is aided *first* by the *eye*, *second* by *memory*.

(To be continued.)

HOME LESSONS.

[From the French, by MARION TALBOT, A.M.]

The development of a child's mind should have a triple object,—to facilitate the perceptions of ideas, to insure the assimilation of the subjects taught, and to open a wide field for the application of the notions which have been acquired. The first two are made the subject of methodical instruction; the last is the work of the pupil himself. This personal work, although including a constant appeal to the child during the recitations, is chiefly carried on by means of home lessons. In order to show that home lessons are good in themselves and not merely because such is the tradition and that they form a highly effective auxiliary in teaching, we propose to point out the different advantages they possess.

Children are undeniably endowed with a remarkable aptitude for receiving impressions and quick and spontaneous sensations. But precisely because of this readiness the impression made by the teacher's words disappear with discouraging rapidity. The great art of the educator is, therefore, to prolong the impressions and to repeat them as often as possible. Only in this way will they leave an indelible imprint upon the young mind. It follows from this principle that even the most lucid explanation or the most attractive and instructive lesson will be really effective only provided that the child is obliged to fix his attention upon it again, to concentrate all his mental forces upon it, to work over and grind in, as it were, the material furnished him in the school. From this point of view home lessons are not only advantageous but absolutely necessary, because they alone can engrave on the child's memory the oral lessons which he has had in school. Another advantage is that the child is early trained in the great law of work. The child who can turn seriously and thoughtfully from his fun to his work will not find life in its reality to be merely a deception. If he has been accus-

tomed to alternate the accomplishment of a task with the pleasures of amusement and to make his instructive tendency to play conform to the exigencies of life, he will know when he is a man how to give a just share of his time to duty and to pleasure. Home tasks, moreover, are the means of inculcating in the child the habit of producing something by himself and of joining to this valuable quality personal initiative and a rational confidence in his own capacity. In a word they foster the development of self-help, the pre-eminent force in society.

These considerations might be multiplied, and it might be pointed out, especially, that from the standpoint of moral education home lessons are an excellent means of training children in a large part of the qualities which contribute to our happiness. Order, regularity, neatness, economy, courage, perseverance, obedience, are virtues in which the child will train himself while doing his little daily task.

Enough has been said to demonstrate that home tasks present obvious advantages, and that the teacher who dispenses with his powerful auxiliary thereby reduces in a marked degree the means of action which should facilitate his efforts and render them fruitful. Parents, too, appreciate the usefulness of these duties. Frequently, and not without reason, their sympathy for the school and the teacher is measured by the more or less serious,—not more or less extended,—tasks which are required of their children out of school.

(To be continued.)

SKELETON LESSONS IN PHYSIOLOGY AND HYGIENE.—(IV.)

BY ALICE M. GUERNSEY.

"My children have no books from which to study their physiology lessons. How can I best teach them?" asks a comrade of our guild. Come with me, by way of reply, to a primary school in a small village a few miles from the "Hub."

"You should see how interested my children are in their physiology," says the teacher, as we watch the bright faces before us. "The last day of the fall term, I let them 'choose sides,' and then questioned them on what they had studied. They answered in their own words, but you could see that they had learned the lessons and understood them." "How do you teach the subject?" "The children do not have the textbooks yet (I hope they will have, some time), but each has a little blank book. I write the lessons on the board, copying the subject-matter from the primary physiology chosen by our committee, but making it simpler, if need be. We talk about it until it is thoroughly understood. Then the children copy it into their blank books, and learn it,—not word for word, of

course, but they study it so as to remember the thought. I examine the books each day, and give 'credits' for neat, correct work. Some of them take a great deal of pains with their books, and they get lessons in penmanship, neatness, accuracy, language, etc., at the same time with their physiology."

In many divisions of the subject,—as the bones, for example,—the "development method" may well be used, as the child can be led to give from his own knowledge, much of the required subject-matter. The method illustrated is commended to teachers who are pressed for time, or have no special knowledge of "object-lessons," distinctly so-called. Is there not danger in some schools, that the children, while learning the process of evolution from their inner consciousness, will not learn the use and value of books?

DIGESTION.

Review the lesson on nerves. Make prominent the thinking-power of the brain. "What must you do in order to have good lessons?" "What part of your studies?" "Suppose your eyes are on your book, pretending to study, but your brain is thinking about the game of ball you are going to have after school. Can you get your lessons in that way?" "What must your brain do, if you are to have a well-learned lesson?" ("It must think about the lesson.")

"The other day a ball went right through a window in the basement, breaking the glass. The boy who threw it hurried to his teacher, and said, 'My father will pay for that broken window. I am sorry, but I was playing with my ball, and I didn't think about the window.' A broken window can be easily mended, but unless boys and girls learn to think, there is danger that they will do something much worse than to break windows, when they are men and women." (Illustrate by railroad accidents through the carelessness of telegraph operators and switch tenders; fires resulting from the carrying of glass lamps into barns; damages to crops because of open gates, etc. Substitute some story connected with the school, for the illustration given above, if possible.)

"You see it is very necessary for us to think. And yet a great deal of work is done in our bodies without our thinking about it." (Show the tiny wheels in a watch.) "What do they say, as they turn round so steadily? Suppose one little wheel should get tired and stop working,—just one tiny wheel!—would that do any harm? Of course it would; if one wheel stops, the others cannot move; they must all work together. It is just so with these bodies of ours. There are no wheels inside them, but there are parts, called organs, and each has some work to do. Put your finger on your wrist, just below your thumb. Can you feel the soft 'beating' there, which we call the pulse? If this should stop, you would die. Press your hands against

your sides. Do you feel the side walls of your body move out and then in, as you breathe? You could not live if these should stop moving. Day and night, just as long as you live, this pulse is beating in your wrists, and you are breathing in the air, and then breathing it out again. Do you have to think, in order to do this? If you did, you would have no time for lessons or anything else. So a part of your brain and some of the nerves attend to it for you, without any help from the thinking part. If you have a strong, well brain, this work will be well done; if you have a poisoned brain, like those who drink liquor or use tobacco or opium, this work will be poorly done."

(Write list of foods on the blackboard, as given by the children.)

"The food you eat is made into flesh and bone and skin, etc. But it all has to be made over in your body. No one of you has an oatmeal arm, or a bread-and-milk foot."

(Explain simply the parts and structure of the alimentary canal; food enters the mouth, and passes down a tube about nine inches along,—illustrate by rubber tubing,—to a sort of pouch, or bag, called the stomach. A part of the food is changed in the mouth; necessity of thorough chewing, slow eating, etc. More of it is changed in the stomach, and some goes into another long tube, where it is still further changed.

CARE OF THE TEETH—NEED OF THE SALIVA.

A tobacco-smoker or chewer usually spits out the saliva mixed with the tobacco juice; thus the food loses something that it needs in order to be properly changed. Wisely, but clearly, and with unhesitating words, dwell on the filthiness and impoliteness of this habit. The argument is most potent with children, whose sensibilities are not blunted, as is too often the case with older pupils, by the use of "the weed.")

"Did you ever, by mistake, pick up a hot poker?" "What did you do then?" "Yes, of course you dropped it just as soon as you could. Your hands were not made to hold hot pokers, and you do not want to make them do it. No more is the stomach made to hold liquors; alcohol hurts it, and if a man sends wine, or brandy, or whisky, or beer, or cider, down into his stomach, there is trouble at once. There are very few nerves of feeling in the stomach, so there is no pain, as when you hold the hot poker in your hand. But the stomach tries its very best to get rid of the enemy that it knows will injure it; just as soon as possible it sends it away; but it cannot do this so quickly as your hands can drop a hot poker, and the alcohol stays in the stomach long enough to harm it. Then if more is taken, the stomach is hurt still more. Doctors say that drinking men often have very sore, inflamed stomachs, made so by the alcohol in the liquors they drink. Your hands could not hold your books easily, or play on the piano,

or set tables, or bring in wood to help mamma, if they were hurt or sore. Neither can the stomach do its work well if it is hurt by alcohol. A great many troubles come from stomachs that are out of order, as trouble would come in a watch if one little wheel should be broken or bent. We must eat good food, and then it must be properly changed in our bodies, or we shall have headaches, and stomach-aches, and many other troubles. We must not drink liquors or use tobacco, because these will prevent the proper changing of the food, by mixing with the saliva, or by injuring the stomach.

SLATE WORK.

1. Write the names of all the healthful drinks you can think of.
2. Write the names of drinks which are not healthful.
3. Write the names of ten kinds of food.
4. Copy this little promise on your slate:

"God help me evermore to keep
This promise that I make!
I will not chew, nor smoke nor swear,
Nor poison liquors take.
I'll try to get my little friends
To make this promise, too;
And every day I'll try to find
Some helpful work to do."

SCIENCE AND ART OF TEACHING.

[Questions from New York Board of Regents, for Examination of Teachers.]

1. What is education?
2. What is teaching?
3. What is object teaching? Illustrate.
4. What is objective teaching? Illustrate.
5. What is subjective teaching? Illustrate.
6. What three things does teaching suppose?
7. What is method?
8. What are the three great divisions of mind, according to Hamilton?
9. Give his classification for the cognition faculties?
10. What are the perceptive faculties?
11. What is memory?
12. What is recollection?
13. What is judgment?
14. State the principles of teaching?
15. State the different ways a teacher may conduct an exercise in teaching?
16. Which in your judgment is best, and why?
17. State the principles of questioning.
18. Which of these is the most difficult for you to observe, and why?
19. What relation should the teacher sustain to her pupils in order to succeed?
20. How does the profession of teaching compare with the other occupations; and why?

STUDIES IN ZOOLOGY.—(IV.)

BY HERMON C. BUMPUS.

We now come to the *Metazoa*, the second grand branch of the animal kingdom, the several members of which are built up by aggregations of cells which resemble the *protozoan* animals already studied. The *metazoan*, or many-celled animals, are ordinarily divided into seven higher branches; of which the lowest includes the sponges. Though the sponges of commerce are really no more than the mere horny skeletons of once living animals, they nevertheless present many instructive peculiarities. On examining several of the more ordinary forms, the scholars will notice that while the greater portion of the surface of each is soft and velvety, there is generally a more or less extended area which has the appearance of having been cut by some sharp instrument. This area is properly the lower portion of the sponge, that part of the animal which was near its attachment to a submerged rock or fragment of coral, and is more or less injured by the presence of foreign matter, though the greater portion of grit has been removed by the sponge-gatherers as they sheared away the root-like base.

Having placed in its natural position a large sponge before the class, the teacher should endeavor to draw out from the scholars several facts in connection with its structure. In the first place its general form should be described and an outline drawn by each scholar. Some one will then notice that there are openings into it, and that those on the sides are smaller while those on the top are larger. Several probes should now be passed into the small holes and urged along until they can be seen projecting into or from the larger canals which open by the holes on the top. The direction that these probes have taken indicates the direction that water may take in passing through the sponge, the small lateral pores being the *incurrent*, and the larger terminal holes the *excurrent* openings.

Probes for the demonstration can be readily made. Having procured from a cobbler some large, strong bristles, dip the blunt end of each in warm sealing-wax, at the same time giving it a rotary motion. The small mass of wax, which should not be larger than a pin's head, thus attached can be made to assume a spherical form and a smooth surface by holding it in a gentle heat.

For demonstrating the internal anatomy of the sponges, as well as for further elucidating the points already mentioned, a small marine sponge, found growing on the spiles of bridges and on submerged rocks, just below low-water mark, is beautifully adapted. This animal, *Grantia*, is of the shape of a hollow cylinder, of about half an inch in height and one-fourth as broad, and is surmounted by a very characteristic crown of shining spines.

If a dried specimen be examined with an ordinary

hand lens, the surface will be seen to have a velvety appearance, given by the interlaced spicules, while a closer examination will reveal the existence of innumerable pores resembling those which were found to lead into the interior of the larger sponge. If the top of the sponge be now examined, there will be found a large hole into which a small bristle can be passed. This hole corresponds to the excurrent openings of the commercial sponge. By now placing the sponge under a compound microscope, it will be noticed that while the small incurrent openings are overlaid and partially hidden by spicules, the larger excurrent opening is free from interfering spicules of any kind.

A sharp knife or razor might now be taken and the sponge cut open along its axis from base to apex. If the inner surface of one of the halves be now examined with a hand-lens, it will be seen to be of a porous nature and without the velvety appearance of the outer surface. If it be further examined by holding the specimen between the eye and some strong light, like that given by a window, the pores will be seen to allow the passage of light, and hence extend from exterior to interior, a considerable distance, as will be observed by examining the cut edges, where there is a central brownish area bounded outside by a broader and inside by a narrower and light silvery white portion. The students should further be led to observe that the pores grow smaller in size toward the apex of the sponge, and finally, as they near the silvery crown, disappear. A piece of sponge might now be placed under a compound microscope in such a way that the students, as they look down the tube, will see the pores opening into the central chamber.

If now some transverse sections of the sponge be made at right angles to the axis of the cylinder, there will be disclosed the radiating tubes which connect the outer spicule-covered openings with the internal pores. In life each of these radiating tubes is lined with a countless multitude of cells, each of which is provided with a long whiplash, *flagellum*, and resembles in every particular some of the unicellular organisms with which the students became familiar in the preceding lessons. By the incessant lashings of these whips a current of water, laden with minute life, is induced to enter the incurrent orifices, and, as it passes along the radiating tubes, is examined by the still active *flagella*, and the nutritive portions are driven along through the pores into the central cavity and out of the excurrent opening at the apex. The function of the interlaced spicules over the incurrent orifices is thus seen to be the prevention of large matter from entering the tubes, while the water once strained is allowed to pass along unimpeded.

The space between the radiating tubes is filled with cells whose functions are varied. While some are interested in the general good of all, as those which build up the skeleton of spicules, others are interested in

forming eggs, which finally leave the sponge to start a new life.

In the commercial sponge, which differs materially from *Grantia* only in being of larger size and in having horny threads take the place of spicules, these cells are washed from the skeleton, which is afterward bleached and sent to market.

[As the teacher may have some little difficulty in cutting sections which will show the radiating canals, the following method is given: Place one of the dry sponges in a vial of chloroform and let it remain there for an hour's time. On taking it out it should immediately be placed in a small dish of melted paraffine, where it should remain until all bubbles have ceased to leave it, when the paraffine is allowed to harden. By now gently warming the dish, the block of paraffine can be removed as from a mould, and whittled down until the position of the sponge is determined. The razor can now be directed at right angles to the axis, and several thin sections, of diameter not greatly exceeding the sponge, removed and placed upon as many glass slides. The slides are now gently warmed over a flame, the paraffine melts, and on hardening holds the sections in place. Now a small quantity of turpentine will dissolve the paraffine, and the slide should be then wiped dry with a cloth, except where the section lies. On this, still moist with the turpentine, can be placed a drop of Canada balsam, and over this a cover-glass, which, on the application of heat, will fall in its place. Those not wishing to go through with this work, or those unprovided with sufficient material, should read the advertisement of J. M. Southwick, on one of the back pages of this number.]

INJUDICIOUS PUNISHMENTS

BY S. D. ANGLIN, WARSAW, IND.

1. *Scolding*.—This is never a proper punishment. Indeed, a scolding teacher soon loses the respect of his pupils. The less the teacher scolds and the less he threatens, the greater the number of friends he will have.

2. *Ridicule*.—The teacher has no right to ridicule either the defects or the mistakes of the child. Such conduct makes a teacher deserving of all the contempt that pupils can heap upon him. Sarcastic remarks, such as calling him a dunce, a numbskull, an ignoramus, etc., is contemptible conduct in the teacher.

3. *Confinement*.—Solitary confinement is not only injurious as a school punishment, but it is also unwise.

4. *Personal Indignities*.—All those annoying punishments which, though not severe, serve to irritate the child, such as pulling the ears, snapping the head, pulling the hair, compelling the child to wear a dunce-cap, and the like, are all improper.

5. *Personal Torture*.—Such punishments as compelling a child to stand on one foot, hold a book at arm's-length, kneel on a sharp edge of a piece of wood, walk barefooted on peas, hold a nail in the floor without bending the knee, etc., ought to belong to the dark ages.

6. *Performances of Tasks for Misconduct*.—No pupil should ever be asked to study a lesson for misconduct. There is no connection between the two, and the love for learning is defeated in this way.

7. *Worrying a Pupil*.—Vexatious talk should never be indulged in. The kind of grumbling in which some teachers indulge hardly rises above the dignity of scold-

ing. If the child makes a mistake, the teacher is sure to complain. If the child is guilty of some trivial offence, the teacher has an unkind remark to thrust at him.

Cautions.—1. Do not make threats of punishment in advance.

2. Do not try to make pupils learn by whipping for unlearned lessons.

3. Adapt the punishment to the offence.

4. Be patient with the shortcomings of your pupils.

5. Do your utmost to prevent faults, so as to avoid the necessity of punishment.

6. Punish only for willful misconduct.

7. Do not reprove those who try, but fail.

8. Do not expect perfect order in the school-room; rather seek to find the hum of industry.—*Public School Manual*.

GEOGRAPHICAL CONTRASTS AND RESEMBLANCES.

2.—EUROPE AND ASIA.—CONTRASTS.

EUROPE.

In the highest condition of civilization and progress.

Religion chiefly Christianity.

Contour most varied, but its peninsulas are not large. Indentations in all parts, by the ocean and by inland seas; thereby enjoys 1 mile of coast for every 150 square miles of surface.

The inland seas and the ocean lying between the indentations form nearly one-half of its surface.

Open to inland navigation.

Lies between the other portions of the Old World and America.

Best adapted for human societies.

Its physical features are highly diversified.

Broken in relief by mountains and valleys. The highest mountains do not exceed 3 miles in height. Extensive plains fresh with vegetation.

Its numerous peninsulas form about one-third of its surface.

Like a perfect tree, with numerous spreading branches, clothed with luxuriant foliage.

Rivers numerous, but not large.

Climate chiefly temperate. Winds and rains variable.

All the vegetables essential to life grow in almost every portion.

Wild animals are not numerous.

Domesticated animals very numerous.

Neither flowers nor birds have much variety or brilliancy of color; but the flowers refresh us with their scent, and the birds delight us with their song.

Rich in minerals.

ASIA.

The cradle of civilization, but now chiefly sunk in ignorance and superstition.

Religion chiefly Mahometanism and idol-worship.

Contour more uniform. Has vast peninsulas on its eastern and southern coasts, but the indentations of the coast-line are not so numerous; it in consequence only possesses 1 mile of coast for every 460 square miles of surface.

In spite of the depth of the indentations, there remains a great preponderating mass of unbroken land toward the centre.

Open only at its margins.

Farthest removed from the New World.

Vast portions scarcely accessible to commerce.

All its physical features are on a gigantic scale.

Great mountains nearly double the height of those in Europe. Vast plateaus and deserts.

Its vast peninsulas only form one-fifth of its surface.

Like a vast trunk, with a few large branches, with a scanty foliage.

Rivers large, but not numerous.

Burning heats in its equatorial portions, and extremes of cold in its northern portions. Subject to tropical winds and rains.

Exuberant vegetation in its tropical portions, and sterility in the frozen tracts of Siberia.

Wild animals exceedingly numerous.

Domesticated animals not numerous.

In the tropical regions, the flowers and birds have the most brilliant colors; but the flowers have little scent, and the birds have no song.

Poor in minerals.

—*Tait's Philosophy of Education*.

DEPARTMENT OF SUPPLEMENTARY READING.

THE THREE COLORS.

There was a quarrel ; red and blue and yellow stood in open defiance, each of the other two.

"Acknowledge me chief!" said red. "I am the emblem of charity. All that is warm, and redolent of comfort and kindness, is arrayed on my tints. I rest on this rose, and claim precedence." *

"Acknowledge me chief!" said blue. "I am the emblem of truth. All that is high and pure and just wears my hue. I rise and shine from yonder sky, and claim precedence."

"Acknowledge me chief!" said yellow. "I am the emblem of light and glory. Kings are crowned, palaces glitter, with my lustrous color. Receive me, O Sun! to thee I call, and claim precedence."

"Ah, my children," said the sun, "the very heavens weep at your disunion. Be reconciled, I pray, and show your strength of beauty where it must ever be,—in harmony."

They rose at the entreaty, and embraced in the tearful clouds ; and the sun shone out on them, and glorions in loveliness was the rainbow they made.—*Mrs. Prosser.*

* Pronounced pre-ceed'-ence.

FOR WASHINGTON'S BIRTHDAY.

The person of Washington was commanding, graceful, and fitly proportioned ; his stature six feet, his chest broad and full, his limbs long and somewhat slender, but well shaped and muscular. His features were regular and symmetrical, his eyes of a light blue color, and his whole countenance, in its quiet state, was grave, placid, and benignant.

When alone, or not engaged in conversation, he appeared sedate and thoughtful ; but, when his attention was excited, his eye kindled quickly and beamed with animation and intelligence. He was not fluent in speech, but what he said was apposite, and listened to with more interest as being known to come from the heart. He seldom attempted sallies of wit or humor, but no man received more pleasure from an exhibition of them by others ; and, although contented in seclusion, he sought his chief happiness in society, and participated with delight in all its rational and innocent amusements.

Without austerity on the one hand, or an appearance of condescending familiarity on the other, he was affable, courteous, and cheerful ; but it has often been remarked, that there was a dignity in his person and manner not easy to be defined, which impressed every one who saw him for the first time with an instinctive deference and

awe. This may have arisen in part from a conviction of his superiority, as well as from the effect produced by his external form and deportment.

He was candid and sincere, true to his friends, and faithful to all ; neither practising dissimulation, descending to artifice, nor holding out expectations which he did not intend should be realized. His passions were strong, and sometimes they broke out with vehemence, but he had the power of checking them in an instant. Perhaps self-control was the most remarkable trait of his character. It was in part the effect of discipline ; yet he seems by nature to have possessed this power to a degree which has been denied to other men. If he had one passion stronger than another, it was love of his country. The purity and ardor of his patriotism were commensurate with the greatness of its object. Love of country in him was invested with the sacred obligation of a duty ; and from the faithful discharge of this duty he never swerved for a moment, either in thought or deed, through the whole period of his eventful career.

—*Adapted from Jared Sparks.*

WINTER.

The ground is white with snow. It is winter now.

Here are boys riding down hill on sleds. One of the boys is Dick. He is on his sled now. How fast his sled goes. Look out, Dick, or you will run against that old stump.

I have a sled ; I call it Rover. My name is Russell. I am going up the hill with my sled. Do you not see me ?

It is good sport, in the winter, for boys and girls to ride down hill on sleds.—*Webb's Word Method.*

A BIT OF BIOGRAPHY.

The life of Washington furnishes us with many proofs of his love of punctuality. When visiting Boston once, he appointed eight o'clock as the hour for starting for a certain place. Precisely at the moment he mounted his horse, and was some distance on his way before his escort, who were not prepared for such exactness, were at the starting-place. Having made an appointment to look at some horses which were for sale, he appeared at the moment agreed on. The seller came a quarter of an hour later, and was told that the President had been there at the time named, but was then fulfilling other engagements.—*A. R. B., in Chatterbox.*

THE AMERICAN FLAG.

The little boys and girls of this great nation will be its men and women, some day. Let us take care that they grow up into good, strong men and women, who love truth, and honor, and their country, and this dear old flag, better than they love anything else,—except God.

—*Sarah M. Knell.*

FRIDAY AFTERNOONS AND SOCIAL HOURS.

These Exercises may be used as Readings or Recitations. The Editor will be glad to receive contributions from teachers and others.

RECITATION.—THE SHIP ON FIRE.

There was joy in the ship as she furrowed the foam,
For fond hearts within her were dreaming of home.
The young mother pressed fondly her babe to her breast,
And sang a sweet song as she rocked it to rest;
And the husband sat cheerily down by her side,
And looked with delight on the face of his bride.

"Oh, happy!" said he, "when our roaming is o'er
We'll dwell in a cottage that stands by the shore!
Already in fancy its roof I descry,
And the smoke of its hearth curling up to the sky;
Its garden so green, and its vine-covered wall,
And the kind friends awaiting to welcome us all."

Hark! hark! what was that? Hark!—hark to the shout,—
"Fire! fire!"—then a tramp and a rush and a rout,—
And an uproar of voices arose in the air,
And the mother knelt down, and the half-spoken prayer
That she offered to God in her agony wild
Was "Father, have mercy! look down on my child!"
She flew to her husband, she clung to his side
Oh, there was her refuge, whatever betide!

Fire! fire! it is raging above and below;
And the smoke and hot cinders all blindingly blow.
The cheek of the sailor grew pale at the sight,
And his eyes glistened wild in the glare of the light.
The smoke in thick wreaths mounted higher and higher;
Oh, Heaven! it is fearful to perish by fire!
Alone with destruction,—alone on the sea!
Great Father of mercy, our hope is in thee!

They prayed for the light, and at noontide about
The sun o'er the waters shone joyously out.
"A sail, ho! a sail!" cried the man on the lee;
"A sail!" and they turned their glad eyes o'er the sea.
"They see us! they see us! the signal is waved!
They bear down upon us,—thank God! we are saved!"

—C. Mackay.

ALWAYS GOOD.

[For a very little girl, holding a doll; she keeps it behind her until when reciting the last line, she holds it up in sight of the audience.]

There is a girl,—(don't think I'm dreaming),—
Oh, she's a pearl! no mischief scheming;
She never sighs, she never grumbles,
She never cries when down she tumbles;
She never soils her pretty dresses,
She never spoils her silken tresses;
With cap on head, and wee hands folded,
She's put to bed, and never scolded.
Now, not to tell her name were folly:
You see her now, for she's—my Dolly!

CONCERT READING, WITH MOTIONS.

[FOR A LITTLE CHILD.]

Whene'er I breathe a good, long breath,
Like this,—like this,—
Then every lung-cell openeth,
While quick the red blood nourisheth,
And all the young life flourisheth
In healthful bliss.

Whene'er I strike a sturdy blow,
Now here,—now there,—
My muscles ever stronger grow,
My heart beats fuller, and I know
That every vigorous stroke will show
I do and dare.

Whene'er I use my willing thought,
And head and heart
Combine to do whate'er they ought,
While all their earnest task is wrought
Obedient to the lesson taught,
To act their part,—

I grow a stronger, better child,
With every day;
My body, mind, and soul beguiled
To health and truth, and virtue mild,
To live in goodness undefiled
In wisdom's way.

—Mrs. L. P. Hopkins.

OUR CHOIR.

[Introduce the appropriate changes in voice to imitate the several singers.]

There's Jane Sophia,
And Ann Maria,
With Obadiah,
And Jedekiah,
In our choir.

And Jane Sophia soprano sings
So high you'd think her voice had wings
To soar above all earthly things,
When she leads off on Sunday;
While Ann Maria's alto choice
Rings out in such harmonious voice
That sinners in the church rejoice,
And wish she'd sing till Monday.

Then Obadiah's tenor high
Is unsurpassed beneath the sky,—
Just hear him sing "Sweet By and By,"
And you will sit in wonder;
While Jedekiah's bass profound
Goes down so low it jars the ground,
And wakes the echoes miles around,
Like distant rolling thunder.

Talk not to me of Patti's fame,
Or Nicolini's tenor tame,
Or Cary's alto,—but a name,—
Or Whitney's pond'rous basso!
They sing no more like Jane Sophia,
And Ann Maria, Obadiah,
And Jedekiah in our choir,
Than cats sing like Tomasso!

—Henry F. King.

GOD IS EVER GOOD.

D. BACHELLOR.

 $\text{♩} = 84.$ *Quietly.*

1. See the morn - ing sun - beams, Light - ing up the wood,
 2. Hear the moun - tain stream - let, In the sol - i - tude,
 3. In the leaf - y tree - tops, Where no fears in - trude,
 4. Bring, my heart, thy trib - ute, Songs of grat - i - tude,

Sil - ent - ly pro - claim - ing, "God is ev - - er good!"
 With its rip - ple say - ing, "God is ev - - er good!"
 Mer - ry birds are sing - ing, "God is ev - - er good!"
 While all na - ture ut - ters, "God is ev - - er good!"

p God is ev - er good, *pp* God is ev - er good!
p *pp*

FOR HEALTH AND STRENGTH.

Round in four parts.

For health and strength and dai - ly food, We praise Thy name, O Lord.

MERRILY, MERRILY.

Round in three parts.

Mer - ri - ly, mer - ri - ly, Ring out ye bells from the lof - ty church tow - er.

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THE BELL-RINGER AND THE ANGELS.

The aged bellman climbed his lonely tower,
 Where cooed the doves each to its gentle mate,
 Day's rosy footprints faded with the hour,
 And shadows gathered at the chapel gate.

The years had crowned with white the old man's brow,
 And from his life his dearest joys had flown,
 The friends his hearth had cheered were dead, and now
 Of all his kindred he was left alone.

His mellow bell the death of evening tolled,
 O'er listening wood and glen the music rung;
 Then night's blue gates were sealed with stars of gold,
 And Beauty watched in heaven with silent tongue.

* * * *

The bellman tarried, gazing on the night;
 He thought of all his kindred gone to rest,
 He longed to view them in their glory bright,
 And clasp again his children to his breast.

* * *

When, lo! two angels, clad in beauty rare,
 Beside him stood, more bright than song can tell;
 Pure thoughts of God had made their features fair,
 And blessings from their lips like music fell.

* * *

"We are the angels Life and Death," they sung;
 "Choose thou between us, which shall be thy guide!"
 Dumb for a moment was the bellman's tongue,
 Then, with a sudden thrill of joy, he cried:

"What! Life and Death! I thought that Death was drear
 I thought he came with sorrow in his breath,—

But, lo! ye both so mild, so bright appear,
I know not which is Life or which is Death!"

Then forth he stretched his trembling arm and took
The nearer angel's shining garment-hem;
For in his eyes he saw a gentle look
That 'minded him of Christ of Bethlehem.

The Angel smiled, and he the smile returned;
"Art thou not Life?" he asked, with eager breath;
"Not so," the angel spake; "yet thou hast earned
Through me immortal joys; lo! I am Death!"

Night hurried on. The stars of morning gray
Grew dim; and in the east pale colors played;
The bellman's spirit then had passed away
To wear the crown his life on earth had made.

And this is dying!—that which man calls Death,
Not as a dark and fearful shadow comes;
It is an angel mild, with loving breath,
That does God's gentle bidding in our homes.

ERNEST W. SHURTLEF.

MOUNT VERNON, THE HOME OF WASHINGTON.

There has been but one Washington, and God in his mercy gave him to us. Let us cherish his dust and revere his memory. Let us together own his mansion and his tomb. Let the youth of our nation make pilgrimages to the sacred spot, and slake the thirst of unhallowed ambition at the well where Washington was wont to draw; and when patriotism declines, let the vestals of liberty rekindle the flame at the fireside of the nation's sire. Thus, sir, may we do much to keep alive, through successive generations, that patriotic fire which burns in the heart of every true American. . . . Let Mount Vernon be the perpetual memento of our country's great deliverance, and let the reverence with which it is regarded be the token of our gratitude. And when in ages hence the banks of the silvery Potomac shall resound as now with the passing vessel uttering its tribute to the memory of Washington, and the flag at the mast head shall humbly droop, and the marines stand uncovered in honor of the sacred spot, let future generations learn the lesson of gratitude and patriotism which these tokens shall daily excite at Mount Vernon.

—Joseph W. Savage.

THE SONG OF NATURE.

The leaf-tongues of the forest, the flower-lips of the sod,
The happy birds that hymn their rapture in the ear of God,
The summer wind that bringeth music over land and sea,
Have each a voice that singeth this sweet song of songs to me;

This world is full of beauty, like other worlds above,—
And, if we did our duty, it might be full of love.

—Gerald Massey.

— "Glory is like a circle in the water
That never ceaseth to enlarge itself
Till by broad spreading it increase to naught."

— Youth treads on flowers where'er he goes,
And finds on every thorn a rose.—Anon.

TEMPERANCE SONG.*

Sparkling and bright, in its liquid light,
Is the water in our glasses;
'Twill give you health, 'twill give you wealth,
Ye lads and rosy lasses!

Chorus.—Oh, then resign your ruby wine,
Each smiling son and daughter;
There's nothing so good for the youthful blood,
Or sweet as the sparkling water.

Better than gold is the water cold,
From the crystal fountain flowing,—
A calm delight, both day and night,
To happy homes bestowing.

Chorus.—Oh, then resign, etc.

Sorrow has fled from hearts that bled
Of the weeping wife and mother;
They have given up the poisoned cup,—
Son, husband, daughter, brother.

Chorus.—Oh, then resign, etc.

* From Franklin Square Song Collection: Harper & Brothers.

WINTER SONG.

Softly fall the flakes of snow,
Whit'ning hill and valley;
Little messengers of love
Bidding sad hearts rally.
Telling of a Father's care,
Robing earth with beauty rare,
As they softly gather.

One by one the flakes descend,
Each with message holy,—
Never heeding that its work
Little is and lowly.
Seeking not the world's applause,
Meekly serving nature's laws,
As they softly gather.

All the night the flakes come down,
Minding not the shadows,—
Doing all they would have done
In the daylight meadows.
Cov'ring all with robe of white
In the darkness and the light,
As they softly gather.

—School Chimes.

FEBRUARY TWENTY-SECOND.

Welcome to the day returning.
Dearer still as ages flow;
While the torch of faith is burning,
Long as Freedom's altars glow.

See the herd, whom it gave us,
Slumbering on a mother's breast;
For the arm he stretched to save us,
Be its morn forever blest.

—Dr. O. W. Holmes.

NOTES AND QUERIES.

Questions and answers for the Notes and Queries should reach us by the first of each month to insure publication in the following number.

We desire that our patrons should consider themselves at liberty to take part in the discussions of the Notes and Queries. You are invited to send in such questions as you desire to have answered; we also solicit answers to questions given.

ALL COMMUNICATIONS FOR THIS DEPARTMENT MUST BE SENT TO THE EDITOR, 3 SOMERSET STREET, BOSTON, MASS.

ANSWERS TO QUERIES.

45. What volcano is called "the lighthouse of the sea"?

Mt. Stromboli, which is situated on one of the Lipari Islands, north of Sicily,—the lighthouse of the Mediterranean.

Miss M. E. G., *Gold Hill, Oregon.*

Also by A. C. A., Powell, Neb., and C. H. M., Portland, Or.

46. What is the political meaning of Junto—(Junta, Spanish)? A cabal,—a clique of politicians who carry all before them.

C. E. B., *Earls, N. Y.*

47. Over whom was the epitaph inscribed, "Here lies one who never knew fear"?

John Breckenridge, in an oration, said of Clay: "If I were to write his epitaph, I would inscribe on the stone which marks his resting place, Here lies one who never knew fear."

C. H. M., *Portland, Or.*

48. Who was the only English sovereign who died without being crowned?

King Arthur.

C. E. B., *Earls, N. Y.*

Edward the Fifth was the only English sovereign who was never crowned.

C. H. M., *Portland, Or.*

52. Name the six greatest American poets.

Six of the most distinguished American poets are: Henry Wadsworth Longfellow, John Greenleaf Whittier, William Cullen Bryant, Oliver Wendell Holmes, James Russell Lowell, Ralph Waldo Emerson.

C. H. M., *Portland, Or.*

53. Name the five best authors among American women.

Among the five best American women authors are: Harriet Beecher Stowe, Mrs. Southworth, Agnes Flemming, Mrs. S. J. Hale, and Marion Harland.

C. H. M., *Portland, Or.*

54. Give some good method of teaching history.

In teaching about the colonization and the wars, let all the leading events in each year be tabulated, and let whatever has been done one day be reproduced on the following day.

55. 1, Balboa; 2, Rolfe; 3, Penn; 4, Wolfe; 5, Warren; 6, Allen; 7, Arnold; 8, André; 9, Fulton; 10, Taylor; 11, Louisiana; 12, Davis; 13, Boone.

My whole is, "Liberty and union, now and forever, one and inseparable"—[an extract from a speech of Daniel Webster.]

CARRIE E. BROWNE, *Earls, N. Y.*

I am much pleased with your historical enigma in the current number of the AMERICAN TEACHER, but I find one error in it: "My 18, 40, 41, 5, 4, and 30, was a brave general killed in the battle of Lexington." Now, it is easy to see that Warren is the brave general referred to, but he had the honor of giving up his life for his country at Bunker Hill, where, I believe, there is a monument erected to his memory,—a plain slab, especially to him.

JOHN H. TEAR, *Delaware, Ill.*

[The correct answer, with the exception alluded to by Professor Tear, was given by Arthur W. Tidd, H. M. Bryan, Red Wing, Minn.; S. V. K., Porcupine, Wis.; L. M. N., Charlestown, Mass., and others.—ED.]

A correspondent correctly states that "'A Glass of Cold Water' doesn't belong to our honored John B. Gough, but to Rev. Paul Denton."

M. L. PEABODY, *New London, Conn.*

QUERIES.

84. What was Prince Albert's surname?

85. Give a comprehensive explanation of the gain or loss of a day in passing either east or west around the earth.

86. Explain the government of the Sandwich Islands.

87. Can the Grube Method, pure and simple, be successfully taught to young children?—I mean as laid down in Soidan's Method. If not, what changes can be made to simplify it?

88. What is the best method (*practical not theoretical, a la Quincy Methods*) of changing from *script* to *print*?

89. How would you explain to pupils the differences between *living* and *non-living* matter?

90. Who is the author of the lines,—

"Full many a shaft at random sent

Hits mark the archer little meant.

Full many a word at random spoken

May soothe or wound the heart that's broken."

A. A. P., *Brooklyn, N. Y.*

91. When is the proper time to begin the explanation of fractions to pupils studying arithmetic?

92. Where are the Mts. Erebus and Terror, and when and by whom were they discovered?

93. Who is the author of the following lines:

"The human heart is like a mill,—it goeth round and round; If it has nothing else to grind, it must itself be ground."

94. At what period in young pupils' course of training can written tests be profitably required?

95. Are there more than *three words* in the English language ending in *cion*? Give the words.

96. In what year was the Oswego (N. Y.) Training School organized? Who was its first principal, and what were its distinctive features?

97. Who was the author of "The Delsarte Sytem" of oratory, and what are its essential principles?

98. What is the capital of Dakota?

99. How may we acquire the power of right thinking, and arriving at just conclusions?

100. There is one place *only* in the United States where *four* of its divisions into Territories and States corner. Where is this place, and how is it marked?

101. How does thought act upon the human body?

Ans. Through the brain and nerves by the faculty called the will.

102. Is exclusively oral instruction in the first grades of the primary school best calculated to develop the *perceptive faculties*? If so, how?

103. Why is Boston nicknamed "Modern Athens" and "The Hub"?

104. In teaching the early history of Massachusetts, how would you explain to children the difference between "The Pilgrims" and "The Puritans"?

105. Who was the first Postmaster-General of the United States?

106. What five Vice-Presidents of the United States have died during their term of office?

107. Who wrote the beautiful lines, commencing,—

"Mount Auburn, sweet Auburn, the home of my dead?"

108. Which is the very best book on American etiquette? (That means on common matters, not merely on society usages.)

109. What early American explorer wrote a "History of the World" while confined in the London Tower?

110. Where would a line drawn due northwest from the equator and extended as far as possible, terminate?

111. When do we have the longest twilight; in summer or winter,—and why?

112. If your reading for life was limited to *ten* books, what authors would you select and what books?

113. Does any portion of the United States have a vertical sun? If so, what part and why?

114. How can the variations in the length of day and night be explained clearly to pupils under twelve years of age?

115. What are the *three* principal causes of ocean currents?

116. How many complete revolutions on its axis does the earth make in one leap-year?

AMERICAN TEACHERS' BANDS OF MERCY.



Every teacher who obtains twenty signatures to this pledge,—
"I will TRY to be kind to all HARMLESS living creatures, and try to protect them from cruel usage," and sends to Geo. T. Angell, Esq., President of Parent Band, 96 Tremont street, Boston, name of "Band" and its president, saying it is a branch of American Teachers' Band, will receive without cost,—

- (1) A beautiful metallic badge.
- (2) Full information what to do and how to do it.
- (3) Band of Mercy melodies.
- (4) Ten lessons on kindness to animals, with stories, etc.
- (5) *Our Dumb Animals*, monthly paper, one year.

There are, November 13, 1885, 5,102 Bands in the United States, with over 321,000 members.

576. Greene, Iowa: *East Side Band*. P., Maud Landes; S., Chas. Kent.
577. Durant, Ohio: *Young Hopeful's Band*. P. and S., Carrie Maurer.
578. Hancock, Mich.: *Greathert's Band*. P., Mary J. Fisher; S., Jerry O'Neill.
579. Washington, Pa.: *Little Workers' Band*. P. and S., Mattie Wiley.
580. Fredericksburg, Neb.: P. and S., J. H. Robb.
581. Church Hill, Pa.: *Rockhill Band*. P. and S., Jno. Detweiler.
582. Pelican Rapids, Minn.: *Golden Rule Band*. P. and S., F. E. Cox.
583. Cecil, Ohio: *Woodland Echoes Band*. P. and S., Helen A. Gale.
584. Greene, Iowa: *Live and Let Live Band*. P. and S., Suie M. Shaw.
585. Nickerson, Kansas: P. and S., Rinda Allen.
586. Marshall, Texas: *The Little Soldiers' Band*. P., Drayton W. Powell; S., Ennis Sherrill.
587. Blairsville, Ill.: *Bethel Sympathy Band*. P. and S., Robert Howell.
588. Valparaiso, Neb.: *Maple Grove Band*. P. and S., Ava Williams.
589. Cadott, Wis.: *Peter Cooper Band*. P., Ida J. Mason.
590. Brooksville, Ky.: *Bee Hive Band*. P., Neppie See; S., Edith Patterson.
591. Alton, Iowa: P. and S., Jennie M. Crowe.
592. Joliet, Ill.: *The Workers Band*. P., Carrie Heilman; S., Albert Danner.
593. Russell, Kansas: *Golden Rule Band*. P., Jennie C. Wilson; S., Cora McDougal.
594. Orange, Texas: *Protection Band*. P., R. D. Delaney; S., Mrs. Millard Johnston.
595. Orange, Texas: *Willing Hands Band*. P., Lilie Lambert; S., Mrs. E. G. Latchem.
596. Providence, R. I.: *New Helpers Band*. P. and S., Caroline E. Work.
597. Blair, Neb.; P., Cora Beard; S., Una Johnson.
598. San Diego, Cal.: *Hitchcock Band*. P., G. N. Hitchcock; S., Mrs. A. H. Todd.
599. New Orleans, La.: *McDonogh No. 17 School Band*. P. and S., Miss M. R. Chevallie.
600. Alpine, Neb.: P. and S., C. T. Waits.
601. Pawtucket, R. I.: *The Everlasting Band*. P. and S., Florence B. Howland.
602. Boston, Mass.: *Brimmer School No. 1 Band*. P., Ella L. Burbank; V. P., James T. Daily; S., Wm. F. Krafft; T., Chas. C. A. Ames.
603. Chamberlain, Dak.: *Peace Seekers Band*. P., Charlie Wright; S., Mary S. Barber.

The Kindergarten, AND PRIMARY EDUCATION.

All communications for this department should be sent to W. N. HAILMANN, La Porte, Ind.

I have still on hand four hundred copies of Dr. Seguin's celebrated *Report on Education*, which I will sell for the benefit of the Froebel Institute of North America, at 50 cents per copy. The book was originally sold for one dollar. It is a rich storehouse of new and fresh ideas on education. The proceeds of the sale go to the publication fund of the Froebel Institute of North America.

All who desire to become members of the Froebel Institute of North America will please send the annual fee of \$1.00 to the treasurer, B. B. Huntoon, Supr. Blind Asylum, Louisville, Ky., or to the president, W. N. Hailmann, La Porte, Ind. Members are entitled to one copy of the *Proceedings of the Madison meeting*, a volume of about 200 pages, and will receive as a premium a copy of Seguin's celebrated *Report on Education*, donated for this purpose to the Froebel Institute.

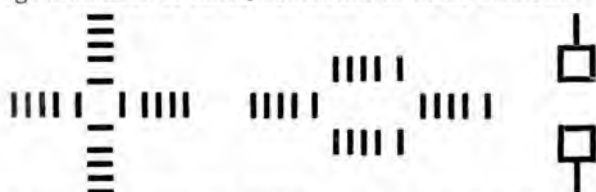
I HAD an opportunity of late to look into a favorite application of the "use of things" in number-teaching. The children had, each, a number of shoe-pegs, and were trying to solve certain problems, or rather to *copy* from the blackboard the solutions of these problems. The work looks somewhat as follows:

For the signs +, -, and = the children used shoe-pegs, as well as for the numbers 1, 2, 3, 4, and 5. They read their work, too, with apparent fluency: "*Four and one are five*," etc. On being questioned, however, more closely as to the number of sticks on each side of the *are-sign* (=), they gave throughout answers showing confusion of mind. They evidently had *copied* the solutions and *memorized* the corresponding word formulas without a clear idea of the number of ideas involved. A number of the children saw, in the first two solutions, seven pegs on the left of the *are-sign* (=) and five on the right; others, by including the sign (=) with the result on the right, saw seven sticks on the right and seven on the left. Concerning the last two solutions, their minds were completely at sea; they could not, even by including the two sticks of the *are-sign* (=), bring in any relation of equality.

THE children evidently failed completely to separate the numbers from the symbols of +, -, and =. This seems unavoidable, when it is considered that these symbols, too, were made with similar things. The + sign was *two sticks*, as much as || would have been *two sticks*; so also was the *are-sign* (=) *two sticks*; and the children could evidently not understand why they should call || *two*, + *plus*, and = *are*. This mixing of things and symbols is always fraught with such difficulties. Even if other things are chosen, if it should be, e. g., oooo + o = ooooo, etc., it will be difficult for the child to make the distinction between the things (circles, rings, or balls) and the symbols + and =, as *things* and *symbols*. Hence they should not be mixed. The pupil should use things alone, and symbols alone. He should, e. g., working with shoe-pegs in solving the problems

given above, take *four* pegs in the right hand and *one* in the left, and,—moving the two together,—recognize the sum of five, describing his actions aloud by saying, “Four (pegs) and one (peg) are five (pegs).” This sentence may, then, be symbolized on the board in the usual way: $4 + 1 = 5$. By way of fixing both the idea and the symbol, the pupil may, then, in silent occupation translate the symbolic expressions back again into things in various ingenious arrangements of his own.

THUS, the pupil sees on the blackboard some of the symbols $4 + 1$, or $4 + 1 = 5$, and arranges his shoe-eggs a number of times, somewhat in these fashions:



Later on, he may be led to place the first part of the problem above, and the equivalent second part (the result) below, thus: $||||$ | These and numberless other similar devices $|||||$ enable the pupil, in due time, to distinguish clearly between the thing and the symbol. They have the additional advantage of being readily transferable to slate-work, thus enabling the pupil to establish living connections among his ideas of number and form in a sort of arithmetical drawing exercises.

AMONG the troubles that beset the work of the kindergartner, there is none that seems to be more keenly felt by late correspondents than the difficulty of holding the children's attention to the work in hand when this involves dictation or instruction. It is not an easy matter to give advice when the details of the cases are not known. Still, as a general fact, it may be safely said that, when children of tender age fail to give attention, it is because they are not interested. Also, that the interest which secures and holds the child's attention must come from continued agreement between the “work in hand” and the child's inner wants. If the kindergartner has the penetration to discover these inner wants, and the skill to adapt the circumstances and her own purposes to these, she will find it easy to secure and hold the child's attention. Without this penetration and skill, all else is unavailing. The kindergartner may sing and cajole herself into hoarseness, she may smile and gesticulate herself into a mild sort of tarantism, or freeze herself at one end of the table into a statue of Suppressed Reproach,—if the instruction or dictation has no natural connection with the purposes of the children, these will remain uninterested or bored victims of her ill-directed enthusiasm.

CHILDREN care for the gifts and occupations only in so far as these serve them in the accomplishment of defi-

nite purposes of their own. In itself, the cube of the second gift has nothing to attract the child's interest; and if the kindergartner sets the cube before the child and counts the faces, edges, and corners, so that he may “know all about the cube,” the child's interest, if born at all, will soon die. On the other hand, if the cube serves the child as a hammer, as a table, or as a house, or if, in connection with the ball and cylinder, it assumes a variety of charming disguises to illustrate a story, an experience or a game, he will soon find out the numbers and relations of its faces through the very gratitude and love that binds his heart to these jolly companions. And so in all other things: the kindergartner's programs, and time-tables, and tid-bits of technical knowledge destroy attention by fettering the child and impeding his growth; lively interest and steady progress come only from following and feeding the child's purposes formed amid the healthful surroundings of the kindergarten, and by enabling the child to accomplish his purposes with the aid of the manifold and flexible playthings of the kindergarten. Given in this spirit, instruction and dictation will be eagerly received and earnestly followed by the children. But nothing else will do. Nothing *made-up* will do.

MANY persons seem to have an idea that the new education is an aggregate of new tricks for attaining certain ends common to all education. This is an unfortunate error; the term “new education,” as used by Froebel and his followers, is very little concerned even with methods, and certainly has no stock in “new tricks”; it is wholly a matter of aims, and concerns itself only with principles. The watchword, “Learn to do by doing,” which has been ignorantly and unjustly charged to the new education, has not more to do with this than the Golden Rule has with Christianity.

I HAVE tried to show you that an ideal of the new and better is not an incongruous, isolated fact in our experience, but as natural and beautiful as the daily recurrence of life and action. It is as if One Hand were laid upon the page of life, and a Voice says, “Turn, my child, and read the new message I have for you.” Jesus said, “The kingdom of Heaven is within you;” so the “new education” must first start in the lives and hearts of the teachers. The worth and dignity of the work must be fully significant. What are we doing day by day, each in his own little place? Giving lessons, teaching them, trying to preserve order, earning a living. Ah, yes; but more. Our fingers, like those of the player, are wandering over the “harp of a thousand strings,”—the child-soul. Are we awakening true harmonies? We are fashioning the plastic clay. Are we true sculptors, working to the inward law of truth and beauty? The teacher must realize that *she* is a greater power to her pupils than anything she can teach them; that the

various facts in the different studies may slip out of sight and memory, but that her faith, fullness, and infidelity will leave their indelible mark on the child-soul."

—*Kate L. Morgan.*

KINDERGARTEN ECHOES.

— The Elementary Department of the National Association (Hon. J. W. Holcombe, president) has invited the Kindergarten Department of the same association (W. N. Hailmann, president) to present at one of the meetings of the Elementary Department a full theoretical and practical exposé of the application of kindergarten principles in primary teaching, setting forth what is claimed by the advocates of these principles, in what way they propose to attain their aims, and to what extent experiment justifies their claims. The invitation has been accepted, and the Kindergarten Department will devote its entire energies to a full presentation of the matters involved, waiving all other meetings for special ends.

— *Froebel's Grave at Schweina.*—A circular has been issued by Prof. Edw. Wiche, Henry Hoffman, and J. Fchuson, the officers of the Hamburg Froebel Committee, which deserves the attention of all who honor the memory of the master. The circular reports that since 1882 the centenary anniversary, the monument over Froebel's grave, and the immediate surroundings have been kept in excellent condition. The balance of the monument fund still on hand will, however, be exhausted in 1886. The committee, therefore, suggest that by contributions a capital of five hundred marks be collected, the interest of which would suffice for all time to keep the grave in good condition. Mr. Milton Bradley, of Springfield, Mass., will kindly receive donations and send the amounts to the Froebel committee.

— Prof. F. Louis Soldan, in his "Notes on the Educational Exhibit of New Orleans," says, concerning the kindergarten: "The kindergarten . . . was represented in the Exposition by a kindergarten at work, taught by an excellent teacher, and attended by bright pupils. No more effective representation of the work of these institutions could be made. The possibility of adapting the kindergarten appliances to elementary schools is well established in the exhibit of the schools of La Porte, Ind."

— Mrs. Louise Pollock's announcement of her work at Washington is an interesting document, and does great credit to her energy and perseverance under trying circumstances. The Pensoara free kindergarten and the Nursery Maid's free training school, established by Mrs. Pollock, are reported to be in a flourishing condition and doing much good.

— The Grand Rapids (Mich.) school board have offered the use of the school-buildings to Mr. W. N. Hail-

mann, of the Saratoga summer school, for the establishment of a branch school for primary teachers in their city. The offer has been accepted. Among the departments so far organized are those of music, drawing, primary methods, pedagogics, and the kindergarten.

— The "German-American School Association," which has lately been organized at Chicago and has established branches in several of the larger cities of the Union, proposes to establish German-American kindergartens, as one of the first steps in its propaganda.

— Good reports come to us from the kindergarten of the crèche at Buffalo, N. Y. Mrs. Barney has charge of the work, which is supported by private benevolence. In spite of the irregular attendance incident to crèche work, much good is done and much progress is apparent.

— "The kindergarten at the Oshkosh normal school has been discontinued." It is not stated whether this disgrace was put upon the state of Wisconsin by faults in the management of the kindergarten, or by the pachydermacy of the normal board of regents.

— The kindergarten at Fort Collins, Col., forms a part of the public schools. The kindergartner, Miss Sara A. Allan, has succeeded in establishing a "mothers' society" in connection with her work.

— Mrs. E. D. Worden, supervisor of the Cincinnati free kindergartens, reports six kindergartens, with 270 children, two directors besides herself, and eighteen volunteer assistants who are in training.

— Miss H. E. Brooks is making excellent use of kindergarten appliances in the State Normal School, at California, Pa.

DR. DAN MILLIKEN'S TESTIMONY.

[In an article on "Infantile Pedagogy," published in Nov.-Dec. number of EDUCATION, Dr. Dan Milliken, of Hamilton, O., bears remarkable testimony to the value of the kindergarten. The most notable features of this we present below. Recapitulating the histological and anatomical peculiarities of the child's nervous system, he says:]

"The lower, inferior, strictly animal parts of the nervous system preponderate in infancy; the nerves are disproportionately large as compared with the nerve-centers; the anterior horns of the spinal cord preponderate over the posterior; the cord itself is proportionately larger than the brain; and, with brain, the cerebellum preponderates over the more intellectual cerebrum."

THE KINDERGARTEN, A PHYSIOLOGICAL SCHOOL.

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"The kindergarten finds a physiological justification in this also. The work is incessantly broken and varied not only by the greatest variety of pursuits, so that the baby-mind in its natural fickleness may not be exhausted,

but also by physical exercises, marches, songs, pantomimes, and the like. So, while the system yields philosophically to the childish disposition to incessant motion, it yet guides and controls that motion to the extent of making it harmonious. In this is involved the idea of law and order and rhythm, and you who have looked into the matter carefully and patiently will agree that, while we cannot suppress the motions of children with safety, we can do the next best thing and can fix their attention on their bodily movements, and safely begin at the most tender years, to bring their little muscles under the control of their little wills, *inducing* that harmonious action which we might command, but would command in vain."

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misgivings whether he could keep his place, and with regrets that he had not found his place by entering the lowest grade the year before, according to my first plan. He had five little companions, similarly educated in the kindergarten, and transplanted at the same time into the public schools. Within a few days, the fact leaked out that all these six children were remarkably proficient in the studies of their new class, and, indeed, it was seriously proposed to promote some of them at once to the third year's grade in the schools. It should be recorded that they were not preternaturally bright children, and that their teacher was at that time only a novice, though she has since shown that she had the essential gifts of a teacher by her work in the public schools.

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souls!) were compelled to attend school more than four hours each day. These latter sufferers addressed themselves strictly to academic work from the start, without any kindergarten nonsense; and yet, in the year's race, the children who worked four hours a day, under the tuition of an experienced teacher, were fairly beaten by the children who worked forty minutes a day under the tuition of an inexperienced teacher."

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- Deliberate long of that which you can do but once.
- The brightest thoughts sometimes come from the dullest looking men.
- Every great book is an action, and every great action is a book.—*Luther*.
- Wisdom is the principal thing; therefore get common sense.—*The School World*.
- *Professor in Psychology*—"Give the substance of the Kant theory." *Student*—"I can't."
- Observe: the faculty of observation, well cultivated, makes practical men and women.
- The best preparation for the future is the present well seen to, the last duty done.—*George Macdonald*.
- "If we could make this country sober," says Lord Coleridge, "we could shut up nine-tenths of her prisons."
- RIDDLE.—What is darker than darkness, longer than eternity; if a man die he eats it, and if he eats it he dies?
- From "true" we derive "truely and trueness"; and in one of them we write the final *e*, while in the other way we omit it.
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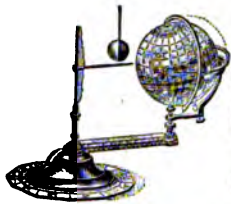
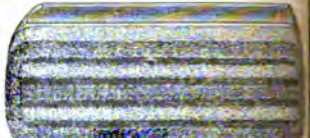
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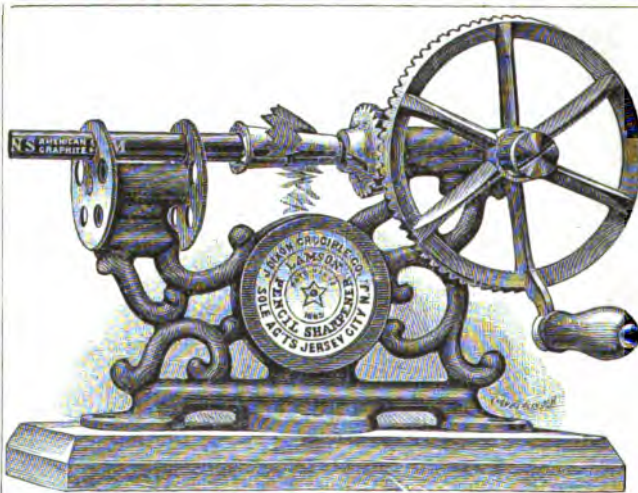
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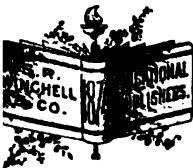
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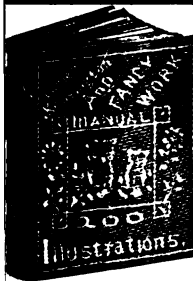
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EDITORIAL NOTES.

HON. JOHN DUDLEY PHILBRICK, whom Bates honored with the doctorate of Laws; St. Andrews, the oldest university in Scotland, with the doctorate of Civil Law; whom Paris decorated with the Legion of Honor, was only a schoolmaster,—simply that, and nothing more. With no accessories of popularity, no indications of genius, no brilliant parts as the world judges, he won honors on every hand as an educator devoted to the advancement of the school-room science. Born in the quiet rural town of Deerfield, N. H., fitted for college at the unpretentious Pembroke Academy, scholastically trained and inspired at Dartmouth, he sandwiched his studies with teaching from the age of eighteen, when he taught the

winter school in his own district, teaching the next winter in the adjoining town of Nottingham. Three of the winters of his college course he taught the district school in Danvers, near the homestead in which he died. Immediately upon graduation he entered the Roxbury Latin School, was transferred in two years to the English High School, became principal of the writing department in the Mayhew, from whence he was promoted to the mastership of the Quincy, the first modern grammar school, where he remained five years. His varied ability and characteristics attracted public attention to him as a young man of rare promise, and his name was mentioned in connection with different vacancies, culminating in his election to the principalship of the Connecticut State Normal School at New Britain, where he made for himself a brilliant record, leading to his selection as State Superintendent of Schools, from which position he was recalled to Boston to occupy its highest educational office, where he made his fame national and international. He possessed the rare gift of making his effort tell directly upon educational forces by means of some permanent contribution to the principles, methods or equipment of the school, while at the same time transferring his ardor with facility from any specialty as soon as its success was assured. He insisted upon better school equipments, advocated single desks until they became the "law of the land," was an expert in the matter of school architecture, directing in the erection of some of the finest school buildings in the world, championed the system of musical instruction in the public school with zeal and discretion, introduced the leading phases of the drawing attachment to the public schools, pioneered the modern grammar school system of Boston, developed the idea of primary school preparation for the discipline and mental labor of the higher grades, promoted the interests of better school supervision, dignified the "official" school report, and advanced the interests of international educational acquaintance.

The schoolmaster is more honored, the school-room more attractive, the school-book more inviting, the school report more readable, the school diploma more valuable because of the life and writings of John Dudley Philbrick.

"WHY does the editorial pen of THE AMERICAN TEACHER always, and of the JOURNAL OF EDUCATION

sometimes, use the feminine pronoun in speaking of the teacher?" A good question that we are only too glad to answer. We do not quarrel with the grammarians who always put the masculine pronoun as including the gentler sex; but so large a proportion of the teachers are ladies,—indeed in the average town they are almost the entire teaching force,—and they receive so little direct literary or professional courtesy, that when *THE TEACHER* was issued it claimed the privilege and asserted the right, without any excuse or defence, of dignifying women by the use of the feminine pronoun. We have been so often complimented thereon that we wonder it was never adopted before. We find this a great gain as we write. We have before us, in writing, the picture of a school such as a lady teaches; whereas with "he" as our companion, we are inclined to think of the master's room despite our best intentions.

Do you ever think what a paradise the school-room of to-day is, as compared with that of years gone by? Where is the "thrashing," the scolding, the noise of other days? There are some who punish severely, we suspect; but they are the exception. They represent the age that has had its day, and they alone remain to reveal its methods. All hail to the better day that has dawned,—the day in which the teacher depends upon her moral sense to discover the moral powers of the child, the day that softens discipline by love, that leads rather than drives, that invites rather than commands, that encourages and stimulates rather than frets and threatens.

No department of elementary instruction is more essential to the best interests of society than that which relates to the ethics of life. The simple principles which should regulate and govern human conduct should be clearly taught and illustrated in our schools. It is not necessary that there should be any specific text-book used. The daily example of the teacher in her relations with the pupils and her regulations governing the relation of pupils to each other will exert a powerful influence. We are often pained, in later times, by the want of reverence shown to the ethical teachings of that grand text-book,—the Bible. It contains the elements of wisdom which will guide both pupil and teacher to usefulness and happiness in life.

THE best book is not always the one that contains the greatest amount of information and the garnered knowledge of the world, but is one that has the influence to suggest and inspire the most thought and profitable meditation on the part of the reader. The best teacher of children is not one whose mind is most richly stored with facts merely. The true teacher is one that brings *out* the child's own mind, and inspires it with healthful activity rather than bringing *to* it the accumulated knowledge of the subject to be taught. Ability to

draw out, rather than to *pour in*, is the real measure of an educator's power. Too much "cramming" clogs the minds of the young, while that training that leads them to think clearly and investigate accurately for themselves, gives them the key to future development and growth. One inspiration generated in the young mind, often leads to effort for self-culture that outweighs in its value all mere statements of facts. A well stored mind is important to the teacher, but it is secondary to the aptitude and tact requisite to the highest success in teaching.

THE art of conversation is one of the most valuable qualifications for the teacher. Children are delighted with one who has the ability to talk with them in a sensible and entertaining manner. It is admitted that the art of conversation can be taught as a branch of school-work, and by the guidance of certain general rules the teacher can exert an influence, by her style and example, that will be of great value to the young in securing for them felicity of expression and ease of manner. Children always listen to a good narrative with delight, and to listen well is almost as desirable as to talk well. Conversation is a mutual matter, and in real life "*small talk*" is the basis of a large proportion of social intercourse. Talks with children should be varied, natural, free in style, governed always by the rules of good breeding, such as avoiding interruptions, personal insinuations, indelicate allusions, or double meanings, cheap witticisms, etc. The great secret of a successful talker consists in displaying genius in bringing out the thoughts of others. Children analyze and philosophize with great correctness; and the teacher who talks too much or who aims to show her own superiority will soon lose her power to interest or instruct the young. It requires wisdom to talk well, and sound judgment must be exercised when to keep silence.

SUCCESS in life depends largely upon sound physical health. Power of endurance in and out of school hinges mainly upon this. We urge upon teachers, even of young children, to devote great attention to this important part of their daily work. The whole nature of a child must come within the horizon of the teachers, range of view. Each part must be trained and developed. The value of a healthy and vigorous body should be considered, and all the requisite conditions for securing it should be sought. Exercise, pure air, cleanliness, intervals of rest, cheerful surroundings, are among the essentials to be had, that are under the control more or less of the teacher.

CORRECTION.—The article on page 167, in the February number of *THE TEACHER*, entitled "Teaching Orthography, by Hon. LeRoy D. Brown," should have been credited to Louis R. Klemm, Superintendent of Schools, Hamilton, Ohio.

NUMBERS AND THEIR EXPRESSION.

BY E. E. WHITE, LL.D.

The failure to make a clear distinction between *numbers* and their *expression* is still a common error in elementary instruction in arithmetic. This error is sometimes made by good arithmeticians, and it even lurks in several of the later text-books. Their fundamental rules contain such statements as "add the figures in the first column," "when a figure in the subtrahend is greater than the corresponding figures in the minuend," "multiply the multiplicand by each of the figures of the multiplier in succession," "divide the fewest of the left-hand figures of the dividend that will contain it, by the divisor," etc. In these, and like expressions, figures are considered numbers.

A number is a numerical quantity, and its existence and nature do not depend on its expression. The number seven, for example, has three common expressions, viz, *seven*, 7, and VII. These are three expressions of the *same* number. There is no such thing as a word number, an Arabic number, or a Roman number. The number seven may be expressed by the word seven, the Arabic character 7, and the Roman letters VII. Each of the digital numbers may be expressed by nearly as many words as there are different languages.

This confusing of numbers and their expression appears in several current definitions of a fraction, and especially of a decimal fraction. A fraction has been defined as "an *expression* of one or more of the equal parts of a unit," an accurate definition if the words "an expression of" be omitted. The definition of several excellent authors make the existence of a decimal fraction depend on its expression *in figures with a decimal point and without an expressed denominator*. The surest way to correct such a misconception is to determine whether there is such a *numerical quantity* as a decimal fraction. If there be such a number, it must exist independent of its expression, whatever this may be.

All fractions have their origin in the division of a unit into equal parts, one or more of these equal parts being a fraction of the unit. A unit may be divided into any number of equal parts, as into halves, fourths, eighths, sixteenths, thirds, sixths, twelfths, fifths, tenths, twentieths, etc. This is the *common* division of a unit, and the resulting fraction is called a *common fraction*. A unit may also be divided into tenths, hundredths, thousandths, etc.,—the unit being divided into ten equal parts, the tenths into ten equal parts, the hundredths into ten equal parts, etc. This is a *decimal* division of a unit, and the resulting fraction is called a *decimal fraction*. It is thus seen that a decimal fraction is a *numerical quantity*, and as such it exists independent of its expression, the same as any other fraction or any other number. A fraction is one or more of the equal parts of a unit; and a *decimal fraction* is

one or more of the decimal parts of a unit. If a decimal fraction is not one or more of the decimal parts of a unit, it has no existence as a numerical quantity.

It is true that a decimal fraction may be expressed in *figures* "by means of the decimal point and without the denominator expressed," but this peculiar expression is not the decimal fraction. When a decimal fraction is expressed *in words* no decimal point is used and the denominator is expressed; as *seven tenths*, *twenty-five hundredths*, *forty thousandths*, etc. Any fraction may be expressed in at least two modes: as three fifths and $\frac{3}{5}$ (also $\frac{3}{5}$ and 3-5). There are three modes of expressing a decimal fraction: as *seven tenths*, $\frac{7}{10}$ and .7, the last being peculiar to decimal fractions, and hence being called the *decimal form*.

It is to be observed that seven tenths, $\frac{7}{10}$, and .7 do not express different fractions, but the *same* fraction; and hence if the fraction expressed by .7 is a decimal fraction, the fraction expressed by seven tenths and $\frac{7}{10}$ is also a decimal fraction. It is the one identical fraction that is expressed by the three modes. On the contrary, $\frac{3}{4}$ and .75 express *equal* fractions, but not the *same* fraction. The fractional part is not the same and the number of parts is not the same. The expressions seven tenths, $\frac{7}{10}$, and .7 express the same fraction, the fractional part being the same (tenths) and the number of parts (seven) being the same.

All uncertainty respecting the true nature of a decimal fraction may be removed by a careful consideration of such questions as the following:

Which existed first, the decimal fraction or its peculiar decimal expression, the thing or its sign?

Can a decimal fraction be expressed *in words*? If not, how can a pupil read a decimal fraction? If not, how can a teacher dictate decimal fractions for pupils to express in figures?

A pupil writes on the board .75 and thinks "seventy-five hundredths." Is the fraction which he *thinks* a decimal fraction? If not, why not?

There is a clear and wide distinction between a decimal fraction and its expression "with the decimal point and without the denominator expressed." If the decimal point is an essential part of a decimal fraction, such a fraction can only exist on blackboard, slate, or paper, or other material substance. It exists only as sensible characters, and has no existence in the mind or as a numerical quantity. The fact is, a decimal fraction is a *number*, and as such does not exist in the eye!

The error of confusing numbers and their expression is most serious in the first lessons in arithmetic. Many teachers use figures from the first as numbers, taking no pains to make a clear distinction between numbers and their signs,—an error akin to the teaching of words as ideas.

There is a kindred error in confounding numbers with

objects. A group of objects that represents a number to the eye, is conceived to be the number itself. The teacher says to her pupils, "Show me the number three," and a pupil holds up three fingers. Now, it is not the group of three fingers that is the number three, but the *threeness* of the fingers,—the *how many* in the group. This suggests the possibility of keeping pupils numbering, combining, and separating groups of objects so long that it may be difficult to *unsense* their conception of number,—to secure the easy apprehension of number without reference to sensible objects. Pupils should pass (not too early) from numbers represented by objects in sight and not in sight (imagined) to the abstract numbers.

The statement has often been made that a child cannot think an abstract number. If the word "think" is used in the sense of *image*, the statement is obviously true, for all images or sense concepts are necessarily particular and concrete. But if the word "think" is used in the sense of *apprehend*, the statement is misleading. No one really knows a number until he apprehends it abstractly; that is, until he apprehends the abstract number. When a child can think seven as more than three, without imagining seven particular objects and three like particular objects, he apprehends both seven and three as abstract numbers. But the more common error, by far, is the teaching of the words and figures that represent numbers before the numbers are known either concretely or abstractly.

In all elementary teaching, it is important that clear distinctions be made between ideas and words, between numerical quantities and relations and their expression.

UNITED STATES HISTORY.

In the study of U. S. History, as now taught in most of our schools, the barren facts only are given, the merest skeleton, as it were, entirely picked clean of the meat. A certain lesson is assigned to a class with the direction that they are to learn it. John cannot tell exactly the day Balboa crossed the Isthmus, or just how Ribaut entered the harbor of Port Royal. He is set down as not having had a lesson, in consequence of not being able to relate these occurrences in the language of the book.

Nor is the teacher in graded schools altogether to blame for teaching in this way, for soon the superintendent comes with his mental yard-stick and forthwith begins to measure the pupils with reference to what they have been over, and not with reference to what mental development they have gained, and what facts that will be useful in after life, or may serve as a stepping-stone to something in advance, they have stored away in their minds.

The teacher must fill the minds of the pupils with a mere outline of history, or her position is in jeopardy, and it *will* be, as long as the present system of examinations is in vogue—*Ohio Ed. Journal*.

MISS WEST'S CLASS IN GEOGRAPHY.

BY FRANCES C. SPARHAWK.

XVI.

At this recitation Miss West said, "I have been trying to teach you how to learn from things you know, about other things greater than those things that you had not heard about before, and yet that were under the same laws. I want to see how much of it all you have understood and remembered. I have drawn for you upon the board the map of South America, putting it under the North America as it really lies, and have marked the line of the equator. Now I expect you, from what you know, to tell me a great deal about this country. When you think of something to say about it, raise your hands. Lily?"

"It is nearly the shape of a triangle, with the big end at the top," said Lily White.

"The mountains run down the west side of it," said Ned Hansom, "and I guess by the blackness, I mean whiteness,—the heaviness of some of them,—that they're pretty good-sized mountains."

"Does anybody know the name of this range?" asked Miss West.

But she had not looked for an answer, and when she told them, she sent Mary Summers to the board to write "Andes" along the range.

"What else?" she asked them.

"The Atlantic Ocean on the east and the Pacific on the west," suggested Willie Sullivan.

"Right. If we were to sail from New York to this point," touching the mouth of the Amazon, "what water should we sail through, and in what direction?"

"South, and through the Atlantic," said Fred White.

"Then, when we go to the beach we see the same ocean that runs all along which shore of North and South America?"

"The eastern," answered a chorus.

"North of South America there is a part of the ocean that has a great many islands in it; some of them the islands that Columbus found, you remember. This is called a sea." And Miss West had the name of it written down.

"It looks all alike," said Frank Blake; "how can you tell which is the sea and which is the ocean?"

"Don't you remember that your father's field down on the meadow-land, and Mr. White's next it, have no fence between them?" asked Miss West.

The children did remember.

"When you are down there playing, do you always know just which field you are in?"

They did not.

"Do you think that Mr. Blake and Mr. White know?"

"My father does," said Fred; "its all down in the deed,—how many rods and feet."

"That is the way that the seamen know where the ocean and the sea meet," said the teacher; "it is all put down upon their charts. Ships sail by charts or maps of the ocean, just as we travel by roads.

But to go back to South America. It is bounded on the north by this sea, on the east by the Atlantic, as you said, on the west by the same ocean that lies west of North America, the — ?"

"Pacific," said the children.

"And on the south is that co'd ocean that corresponds to the frozen ocean north of North America."

"The Arctic?" asked Fred White.

"The Arctic; and this is the Anti- or Antarctic, which means opposite or over against the Arctic. And now I want you all to tell me whatever you can think of about the country."

"Short rivers on the west side," said Carrie Blunt.

"Why?"

"Because the mountains are close to the shore there and the rivers don't have a chance to run any distance before they get to the ocean," she said.

"Then on the other side they're long, of course," cried Johnny Smart, "or, anyway, they're long up at the north, where it's so broad; and further down, I notice they have a way of running lengthwise instead of straight across, and so they get in lots of extra length."

"Any more mountain ranges?" asked Miss West.

"Yes," said Ned Hansom, "some in the east shoulder."

The children laughed at Ned's description, and the teacher told them that these Brazilian ranges were just a little like the Alleghany system.

They pointed out the three largest rivers, and learned that the great river basins or plains of South America were called "llanos," "silvas," and "pampas."

When Frank Blake had pointed out the equator, the children saw that the Orinoco was near it, that the tributaries of the La Plata rose near it, but that the Amazon emptied into the ocean directly under it.

"Now, let us go back," said Miss West; "do you remember that a number of lessons ago you learned that two things made vegetation luxuriant? What were they?"

"Heat and moisture," cried Carrie Blunt.

"Right. Now here is a river in the tropics, that is in the hottest part of the earth, therefore we must have heat. It is the largest river in the world, and you can have a little idea of the great quantity of water that it brings down from the mountains when I tell you that at its mouth, that is where it empties into the Atlantic Ocean, it is almost one hundred miles wide. Think of a river as far across as from here to Boston."

"And how long is it?" asked Johnny Smart.

"Four thousand miles from the Andes Mountains to what Ned calls the east shoulder. But you know that a river does not run straight,—it usually wanders about

here and there, and travels a longer distance over the same country than a railroad would."

"Just as if I came straight to school, and Johnny went all round the fields and criss-crossed the road," said Willie Sullivan.

"Just the same," answered Miss West.

And then the class traced the course of the Amazon.

"The plains of the Amazon River are called, what?" asked the teacher.

"Silvas," said the class.

"Silva means a wood or forest," she said, "and these plains that the river flows through are called silvas because for fifteen hundred miles they are covered with forests so thick that there is no road through them. These forests are in some places three hundred miles wide, and in others twice as wide as that, and they are so dense, so thick, that no people live there; they are full of wild beasts and serpents, and beautiful birds, and insects, but you would not find there a human being."

"How do people know anything about it if they can't get through?" inquired Johnny Smart, with the air of having cornered his teacher.

"Very good," said Miss West. "I will ask the class that question."

After a minute of silence Lily White suggested that Miss West had said that the river went through. Perhaps people went by that.

"Still better," said the teacher. "Do any of you remember that when we were speaking of tropical vegetation, I told you of a certain river where trees such as we never see here,—trees with beautiful foliage and with flowers, grew along the banks? Do you remember my telling you that the trees were so close together and the undergrowth so dense, that sometimes for miles the travelers could not find room to step ashore? That river was the Amazon."

Then Miss West told the children more about the luxuriant vegetation of the South American tropics and the brilliant plumage of the birds there. She told them that when Europeans first came to South America they found no horses, or oxen, or sheep there, but plenty of gold and silver. She told them what kind of people they were who came, and how they destroyed the inhabitants for the sake of their riches. Also, she gave a short account of the Andes Mountains, among which these people were found, and of the other parts of the country.

And she saw with satisfaction that the class discovered several large cities from their position.

— Of all the studies in the world on which to form early and sound habits of investigation and reasoning, natural philosophy holds pre-eminence. It gives us the happiest proofs and the most deep-rooted convictions of truth; it furnishes the quickest admonitions when we deviate toward error.—*Horace Mann.*

READING IN ELEMENTARY SCHOOLS.

BY M. EMMA JONES.

The subject of reading in our schools has, in some instances, received too little attention. The utmost pains should be taken in the lowest primary grades. Bad habits formed in these grades seem to have a most tenacious desire to remain with their possessor.

Our aim in teaching reading is to enable the child, by the fourth year in school, to read any papers or books which are within his comprehension. Teach a child to read well, — understandingly, — and there will be less trouble with other studies. In the first year fully *one-half* of the time should be spent in reading. As pupils advance, decrease the time, until the third year, when about *one third* be should devoted to reading.

In most of our school readers there are excellent rules for reading. They may all be expressed to primary pupils in this one; viz., "Read as you talk." A child, if left alone, will read a sentence right,—right according to its own thoughts. The little one often *thinks* wrong, consequently he *reads* wrong. He cannot be *made* to think, but must be *led*. Skillful questioning by the teacher will do wonders in this direction.

Do not correct sing-song tones, wrong emphasis, or any incorrectness, by first reading the passage yourself, then requiring the pupil to read. Of course, now he reads it correctly. But what has been gained? *Nothing*; but much,—the power to do for himself,—has been lost. Now let the little fellow try the next sentence. He is as helpless as ever; yea, more so; for having been helped once, he dependently looks for and expects help again. With helpful, suggestive questions, talking of the lesson, learning the meaning of all the new words; becoming familiar with all the words at sight so as to readily pronounce them,—all this having been done, have pupils read, a clause at a time, until correctly read. It is easier to read and express correctly a few words than a long list. When the sentence or paragraph has been thus read in parts, have read two clauses; three; then the sentence, and last the paragraph. Have a paragraph told in child's language. Have a sentence read, substituting the meaning for the word.

These directions continued and properly followed, with plenty of ingenuity and skill on the part of the teacher, we think will be an effectual remedy for what some one has been pleased to style "that dreadful compound of a whine and a groan." Every teacher has had painful experience with the disease, the healing of which has sometimes almost baffled the skill of the most skillful teachers.

Neither is pronouncing words readily and correctly, good reading. These are necessary adjuncts, but alone they are valueless in giving expression.

Reading shows the intelligence of a child, his comprehension of the text.

Pronunciation, articulation, and punctuation, all claim an equal share of attention. Fail to observe either of the three and your reading is not successful.

FRACTIONS.

BY WM. M. GIFFIN, A.M., NEWARK, N. J.

In dealing with fractions we must not be any more confused than when dealing with units. Thus we say, one-half of four units is two units; one-third of six books is two books. So also we say, one-half of four-sevenths is two-sevenths; one-third of six-ninths is two-ninths; and yet the writer has often asked teachers, "What is one-fourth of four books?" the answer is given, "One book." "What is one-fourth of four-ninths?" The answer is given, "One-fourth of four-ninths?" Why, one-fourth of four-ninths is,—why, it is four thirty-sixths!" Sure enough, it is $\frac{1}{9}$? But did the teachers who so answered think of numbers or figures? Why did those teachers say $\frac{1}{9}$? Was it not because they had been faultily taught the subject? Did they think of a division of something, or of some operation they had learned when children? If not the latter, why did they not say $\frac{1}{9}$?

We have known teachers who, when asked to find the sum of $\frac{1}{2} + \frac{1}{3} + \frac{1}{6} + \frac{1}{6}$, begin by writing the 4, 3, 6, 8, on a line, and then performing the following work:

$$2 \overline{) 4, 3, 6, 8}$$

$$2 \overline{) 2, 1, 3, 4}$$

$$1, 2, 3, 2$$

$$2 \times 2 \times 3 \times 2 = 24. \quad L. C. M.$$

This was because they had been given crutches with which to walk when they were not lame.

The writer always *insists* upon the class finding, by sight, what is the common denominator of the fraction, and he never has any trouble in doing it, when he uses fractional blocks to illustrate. His class never knows anything about the LEAST COMMON MULTIPLE until they have been adding fractions for four or five days. Then he gives an example which he knows they will be unable to find at sight. "What shall we do? Ah! I know, boys. Give me your attention and I'll show you." You see, he has created a necessity for the L. C. M., and all are full of interest, and give undivided attention to his explanation. Having been made hungry for the knowledge, and having received it under such circumstances, they *never forget it, and never use it only when it is necessary to do so.*

It was the words of Garfield that suggested this kind of teaching to the writer; viz., "The student should first study what he most needs to know. The order of his needs should be the order of his work."

GYMNASTICS.

THE CULTIVATION OF THE VOICE.

The main parts of the voice are the lungs, the mouth, and the vocal organ proper. To breathe well is to speak well. It is an art. We do not breathe well naturally. To breathe for the purpose of speaking is a very different thing from the act of breathing for the purposes of life. We must learn it.

Many people,—most people,—use only a third part of their lungs when speaking. This is about as injurious as to walk with the third part of one's foot. We must learn to use the whole of our lungs. A deep inflation is the first condition of true vocal emission. Think of the action of the bellows on the "expression stop" in a good harmonium, and reflect. The way to learn to breathe is to practice. Take in a long breath; hold it as long as possible; let it out slowly as possible; do it at first without emitting sound; by-and-by emit sound, any notes and all the notes; energize; strive to accomplish more each time; aim at acquiring power; observe yourselves; practice one thing at a time. A schoolboy feels pain in his arm the first day of the cricket season. He has brought muscles into play that have lain idle for many a long day; the pain is a natural consequence. You have brought into play muscles, the muscles of your lungs, which, possibly, you have never before exercised; so you will feel pain. Never mind. It will pass off, and then it is healthy exercise.

We must pass over the way of taking in and letting out the breath,—these arguments *pro* and *con*,—with the remark that observation and faithful practice will supply what must now be necessarily suppressed. Then, as to the mouth. We must learn to open it. We Americans,—thanks, perhaps, to our atmosphere or to the superabundance of consonants in our language, or both,—do not open our mouths wide enough. Sound cannot come out of our mouth unless we open it. We acquire the habit by practice. We must take care in exercising to open the mouth well about the base of the tongue. This seems a simple matter, but it is nevertheless very important.

And now for the vocal organ proper. It is more difficult to give directions for the development of its powers on paper. A pattern from the living teacher is better. The object to aim at is what singers call "the clear shock of the glottis." When this is accomplished the speaker need not fear any amount of work.

EXERCISES.

The requisite exercise is of two kinds:

(1) *Singing Exercises.* Exercise the vowels with all the notes in the scale. *A, kah,* and *ska* should be especially used. A singing tutor, obtainable at any music-seller's, will supply plenty of examples. (2) *Speaking Exercises.* Select a list of words with long vowel

sounds, such as "fall," "voice," "now," etc., and repeat them slowly and loudly. Draw them out as much as possible. It must be remembered that these exercises must be pursued constantly and regarded as gymnastic. The object aimed at must be to attain power. The reason is obvious. Ask nature for power in the right way, and she gives it. Think of the muscles of a blacksmith's arm.

We ought not to cease agitating till there is a system of vocal gymnastics recognized and pursued at all our public schools.

THE USE OF THE IRREGULAR VERB.

BY WM. M. PECK, A. M.

No part of the English language is more fruitful in errors than the irregular verbs, and no exercise in language can be made more interesting to children than learning their correct use, which to very many of them will be something *new*. For the first lessons choose such verbs as will present actions for the children to see during the recitation. Take the verb "break" for the first exercise.

The teacher holds before the class a crayon.

If I want to make two pieces of this crayon, what shall I do? "Break it."

Require the answers to be complete sentences in every case. Let the sentences be repeated several times. The teacher breaks the crayon:

What did I do? "Broke it."

Tell me so. "You broke the crayon."

The teacher holds the two pieces to view.

What have I done with this crayon? "Broke it."

Tell me so. "You have broke that crayon."

That does not sound right.

The teacher will get the correct word in the sentence; then let all repeat the sentence together.

The pupils repeat *break, broke, broken*, very distinctly, after the teacher. Then obtain a variety of answers to each of these or similar questions.

How many ever broke anything, and when? How many have ever broken anything? What had I done to this crayon when I showed two pieces? and other questions, securing the answers "has broken," "is broken," "was broken," etc., each in a complete sentence. One new word each day, reviewing words previously given, will furnish occupation for a long time.

— A great love for truth and justice should be developed by real teaching. Truly the invention of the schoolmaster has been carried to the bitter end when children can be trained into a dislike for the study of the grand scenes of which history is so rich and full.—*Teachers' Institute.*

TEMPERANCE PHYSIOLOGY and HYGIENE.

BY ALICE M. GUERNSEY.

X.

No one will dispute the necessity of a liberal supply of pure water for the use of the body. The torments of extreme thirst are described as more intense than those of famine. I quote again from Gustafson: "Alcohol, besides being dangerous to the digestion, blood, and tissues (in the measure that it is undiluted), . . . has a chemical affinity for water, and therefore occupies it, in spite of the protests of the body that no more can be spared. And thus we have one source of the *drink-craze* which becomes at last, by the degeneration of the nervous system, almost a constitutional need. The drinker, if he can, meets the body's demand for water with some alcoholic drink; *i. e.*, alcohol and water; but he feels only partial satisfaction therefrom, because the water found in the drink he takes has only been enough to partially satisfy the water-demand. Drinkers of alcoholic beverages decry water-drinkers for the quantities of cold water they pour down their throats. As a matter of fact, alcohol-drinkers take a great deal more of cold water than do water-drinkers. . . . Not only do their systems have continually to wash out and dilute the alcohol, but the alcohol itself calls for water on its own account; hence further thirst, the call for more water; and the call is met, but only in connection with more alcohol also; and the more anxiously the system cries out for pure water to quench its thirst, the larger and stronger doses does the victim of alcohol pour down his throat; and if not stayed by the hand of mercy, his thirst will not be slackened except by the waters of Death."

It is not our business, as teachers, to make personal criticisms on the home life and surroundings of our pupils. And yet, in a general way, with a wisdom and kindness which will not offend, we must often do this. As educators of coming boards of health (in the good time-to-be, when each house shall be a sanitarium), we must teach the children to look well to the sources and surroundings of the water supplies of their homes. The common newspaper reports of epidemics, resulting from carelessness in this matter, carry their own lesson. Lives may be saved by our faithfulness in this matter. The same is true as regards ventilation and clothing; of no less importance, certainly, is the use of alcohol in food, which may well be considered in this connection. It is a delicate subject to handle, and yet no conscientious teacher can omit it.

Perhaps the best ground on which to combat the wine jellies, cider in mince pies, and brandy sauces, is that of the cumulative action of alcohol, which should, by this time, be thoroughly mastered by the pupil. In food which is baked, it is true that the alcohol escapes in the heat of the oven. It is no less true that a certain

flavor remains which has proved itself sufficient, time and again, to awaken a slumbering appetite. Thank God that the "arrest of thought" on this subject has come to so many of the mothers of the land. Be it ours to lead the boys and girls who will be heads of families, by-and-by, into paths of perfect safety.

"I cannot understand why my sons are drunkards, or how they acquired the appetite for liquors," moaned a stricken mother. In conversation with a friend on the care of children, a short time after, this same mother said, innocently, "Oh, I couldn't have brought up my children without gin." Was it any wonder that the drink demon obtained control over those boys?

VALUE OF PHYSICAL EXERCISES.

BY SUPT. B. F. WRIGHT, ST. PAUL, MINN.

Physical education is deemed by some a panacea for all the ills that schools are heir to, especially when coupled with positive instruction in the laws and conditions of health. When will parents cease to put all the responsibility for the physical, mental, and moral development of their children upon the teacher?

In all our schools light gymnastics should be practiced, and in the grammar schools oral instruction should be given in practical hygiene. The value of physical exercises in breaking up the routine of school-work is unquestioned, but as a means of physical development they are of no great importance. Parents should give some attention to this part of the education of their children. Teachers will do the best they can to instruct them, under proper hygienic conditions, during the twenty-five out of the one hundred and forty-eight hours of each week, that the schools are open. There certainly are some things in connection with the rearing of children that should not be relegated to the schools.

ABOUT WRITTEN EXAMINATIONS.

TO PUPILS.

1. Do not be in a hurry. Take time to read every question carefully, so that you may be sure to answer just what is asked, and nothing else.
2. Work slowly and thoughtfully. *Think out* your answers and condense them into the fewest words possible.
3. If you come to a puzzling question, pass it by until you have answered the rest, and then turn back to it when you are not pressed for time.
4. Write neatly and legibly, and punctuate as you write. Separate your answers by a space, so that the examiner may distinguish each without confusion.
5. After you have completed a paper, go over it carefully with reference to accuracy, expression, spelling, punctuation, and capitals. — *John Swett.*

PLUS AND MINUS.

BY MRS. E. D. KELLOGG.

How is it, that in the otherwise sensible and philosophical methods advocated by good authorities, for the working out of a lucid treatment of that fashionable craze, first year's work in number, that one frequently finds the terms *plus* and *minus* put forward as proper phraseology for children just out of the nursery? One expects to see a constant battle over the Grube and anti-Grube methods, and might naturally feel like poisoning in the flight of survey over this well-trodden ground, to wonder whether the infantile brain shall be puzzled with two or four processes; but how any thoughtful, consistent, practical teacher can advocate the use of the terms *plus* and *minus* for six-year-old pupils, without violating the principle of simplicity in the teaching of children, is a mystery.

A child puts one block *and* one block together and makes two blocks. There is not the least trouble in his perfect understanding of that word *and*, in uniting two things. No explanation is necessary or confusion involved in the use of a word with which he has always been familiar. The word *and* is "sunk into automatic action," and every waking hour of his life practically demonstrates his unconscious comprehension of it. He goes to school and is introduced into a world of numbers, and instead of using the well-known *and* to help him in this new call on his unused faculty of combination, his work is made infinitely harder and stranger to him, by the use of the un-English *plus*, that he has never heard before, that means nothing to him, and that he will almost never hear in the future except in number work.

The terrible bugbear that teachers delight to make of the process that "one and one are two," in the teaching of little folks, and which the child knows, in all but the language, every time he uses his playthings, is made a still greater one by the introduction of a senseless word, wholly out of the range of the child's vocabulary, and needing a translation into Anglo-Saxon before it means anything. And this is simplicity in teaching! It is surely going "from the known to the unknown" with a vengeance. But is it a natural, common-sense method? The child turns to his dinner and sees a knife *and* a fork; when he gets to school it becomes a knife *plus* a fork. He plays at home, with a boy *and* a girl; to be consistent, it is a boy *plus* a girl when he meets them in the school-room. If this isn't eliminating the home element out of teachers, what is it?

But, says an objector, the child learns *plus* without any difficulty, and he must know it some time. Yes, the child will say a word in Sanscrit in that place, if you teach him that. A child can *say* anything. True, he must learn many a term in after years that need no,

necessarily be administered with a spoon now in the baby age.

As the usual argument that *minus* is just as easily comprehended by the child as *less*, we say, try it the right way and see. Make a pile of objects and let the children make it *more* or *less*, by taking away and adding to it. No matter how small they are; if in school, those terms will come almost spontaneously in response to skillful treatment and questioning by the teacher. We have seen dull little children, hardly able to reach the top of the number-table, give this term *less*,—as, "You have made the pile *less*,"—with perfect ease and understanding. We have never known the brightest prodigy to evolve *minus*. If any teacher is troubled to get the term *less* intelligently from the children, she has failed to work on that law of contrast that belongs to the mind, and has such wonderful associative power as to almost amount to revelation. We would recommend to the teacher to go back, over and over again, to the piled-up objects for illustration, whenever the wandering mind and mechanical tone show it has lost its first meaning. We should like a recipe from some expert for freshening up *minus* and endowing it with life and meaning. Either let us stop advocating natural *home* methods, or else wait till the mother, in distributing favors among her children, tells them that John must not have *plus* nor Mary *minus*, but that both must share equally.

Emerson says that "great minds have nothing to do with consistency," but, without the slightest acknowledgment that these do not abound in the profession we believe that teachers *must* have a great deal to do with it, or fail of the best results.

PRIMARY WRITING.

BY EDWIN SHEPARD.

A good long lead pencil is the best introduction to the pen; used upon the same substance (paper), and of the same size, it can, if properly handled, serve all the uses of the pen in the school-room. With it can be taught the correct position of hand and pen, form of letters, movement, and all that pertains to writing, save the actual use of ink.

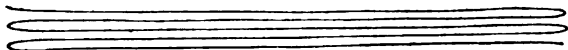
I do not condemn the use of the pen at the age of seven or eight years, but think the same results can be accomplished by using the pencil, with less labor and trouble to the teacher and at reduced expense. The pencil *must* be kept sharp, and discarded when it becomes too short. Short slate and lead pencils are the means, unconsciously, of forming the habit of grasping the pencil close to the point with the vice-like grip so common in our schools; and no habit is harder to overcome when the pen is placed in the hands of the pupils. My constant plea is for *long* pencils. The

teacher in higher grades is often found hard at work breaking up a habit that, with proper care, would never have been formed.

Do not attempt the use of ink at the first lesson; give out the pens, and practice pen-holding and movement. As the pupils are not writing, the position of the body can more easily be secured. See that the little fingers are kept well back from the pen. Pass in and out among the pupils, righting up drooping shoulders, and [pushing the pens of those who are holding them so near the point, farther down.

Show them the correct position at the desk, and create, if possible, an enthusiasm over this dry but very essential point. Stir up a strife as to who shall sit the best. Call attention to the one sitting in the best position, and reward in some manner those who have made improvement; *always* recognize honest effort.

Show the pupils what the forearm movement is, and how it is made. Place upon the board the following movement exercise,—



and with the dry pen imitate the motion used in making it. Do not use the fingers in this movement, other than to simply hold the pen; let the muscle of the forearm do the work.

Repeat, slowly, the words, — "Forward, back; forward, back,"—three times, letting the class repeat the words with you, and moving the pen at the same time.

Explain the finger movement, showing how it is made; change to the following movement:



Use the words, "Slide, down; slide, down." Show that the forearm makes the line indicated by the word "slide"; that the fingers contract to make the down stroke. Tell them that this union of the forearm and finger movements is called "the combined movement," and the one most used by the best writers.

These two exercises can precede each lesson, for the first year, with the pen. If the pens are new, wet them with the tongue to remove the finishing-oil. Try with ink, upon practice-paper, the first exercise. Careful work on practice-paper should precede every copy-book lesson. Mistakes made here, through carelessness or ignorance can be avoided when the book is taken up. Blunders and gross errors should not appear in the book.

The copy-book should show how much form has been taught, and how much proficiency has been attained in executing the different forms found in the copy.

The introduction, then, to ink-writing is something like the following:

1. Practice on form, with either lead or slate pencil, from copy set by the teacher on the blackboard.
2. Drill exercises with a dry pen on movements.

3. Drill exercises on practice-paper with ink.
4. Trace the copy found in the book with dry pen.
5. Practice this copy on practice-paper with ink.
6. Write in book.

The first lessons with ink are a great trial to the teacher's patience, but good results (neat books) showing a continued improvement, are an immense satisfaction to both teacher and pupil. A clean, well written copy-book, showing as it does neatness and attainment, becomes a thing of beauty and a joy forever.

SIMILAR-SHAPED SOLIDS AND FIGURES.

BY G. C. FISHER.

It has always seemed absurd that pupils should not be taught the relative size of spheres, circles, and other similar-shaped solids and figures until (as is usually the case) *the last year of grammar-school life!* If it is important, from a practical point of view, that a pupil should know the cost of eight oranges at three cents an orange, is it not also important that he should know the relative size of two oranges, one of which is four inches in diameter and the other two? Is he a well-informed dealer in oranges if he does not know?

For the benefit of teachers sufficiently iconoclastic and radical enough to defy the bugbear of authority and disposed to give out examples involving the relative size of spheres, circles, etc., the following are inserted:

A cheese that is 2 feet across, is how many times as large as a cheese of the same thickness 1 foot across?

An iron ball, 2 inches through, weighs how many times as much as one 1 inch through?

A man who is 2 feet across the shoulders, is how many times as large as a boy 1 foot across the shoulders?

An apple that is 2 inches through, has how many times as much eating in it as an apple that is 1 inch through?

A hoop, 4 feet across, is how many times as large as a hoop 2 feet across?

A round dish, 3 feet across, would catch how many times as much water as a round dish 1 foot across?

The above will suggest others of similar kind.

— Cheerfulness is just as natural to the heart of a man in strong health as color to his cheek; and wherever there is habitual gloom there must be either bad air, unwholesome food, improperly severe labor, or erring habits of life.—*Anon.*

— I am impressed with the fact that the greatest thing a human soul ever does in this world is to *see* something, and tell what it saw in a plain way. Hundreds of people can talk for one who can think, but thousands can think for one who can *see*. To see clearly is poetry, prophecy, and religion,—all in one.—*Emerson.*

"TENS AND UNITS."

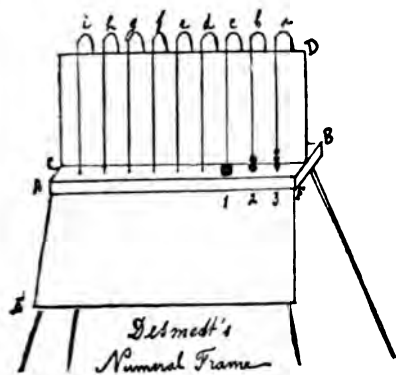
To the Editor of the American Teacher:

We have read with great interest the article of Emma D. Schneider, published in Jan. TEACHER, 1886, under the title of "Tens and Units." We feel exceedingly pleased to see her introduce so boldly the word *ones* among the arithmetical terms, as borrowed from the vocabulary of children. To a child *one* and *ones* have a meaning and suggest an idea, whilst *unit* and *units* are words not only devoid of sense, but incapable of acquiring a meaning, except by means, and as a synonym of *one* and *ones*.

At the same time the article has suggested a question which we have often asked ourselves; viz., Is it not to be regretted, and a cause of much confusion, that we use the same term *units* in the three following expressions: "Order of units," "Period of units," and "Units the 1st, 2d, (etc.) order." Would it not be preferable to say, for instance, "Period of unities," and "Elements of the 1st, 2d (etc.) order." We are particularly pleased to observe that the writer departs from the general practice of text-books, and no longer includes *ten* among the first and most elementary numbers, but on the contrary treats it as a *tally*.

If we analyze the writer's theory aright, it seems to us that she would understand how to use with advantage a numerical frame which we devised a couple of years ago, but the manipulation of which seems to puzzle some of our teachers, although they tell us that they have seen it before. Whatever the title to the claim of inventor may be, if the frame can be of any use to teachers, they are welcome to it, as far, at least, as we personally are concerned.

A glance at the diagrams shows the construction of the frame. *AB* is a small block resting upon four legs of convenient height. *CD* is a thin board fastened perpendicularly to the upper face of the block. Its object is to hide the balls not in operation. *a, b, c, d, e, f, g, h, i*, are wires rising perpendicularly from the



upper face of the block, bending over the top of board *CD*, and returning perpendicularly to the block in the rear of the board. The number of wires is a multiple of 3, there being three orders in a period. Upon each wire there are ten balls,—nine might be sufficient; all the balls are of the same height, but of three different diameters; viz., small size for *units*, medium size for *tens*, and large size for *hundreds*. Each set of three wires have their balls painted in different colors, each color marking a period. The names of the respective orders and periods are printed upon the board behind the respective wires, thus:

Hundreds	Tens	Units	Hundreds	Tens	Units	Hundreds	Tens	Units
of millions.			of thousands.			of units.		

EF is a small blackboard attached in front for the purpose of writing the numbers, as they are formed upon the frame. The object of the frame is to teach to write and read numbers according to the theory of the decimal scale; and its manipulation, briefly set forth, embraces the following steps:

FIRST STEP.—Upon the wire *a* pass 1, 2, to 9 balls to the front; ask how many balls; have the pupils write the proper figure on the blackboard under the wires. By times remove all the balls, and ask again, "How many?" in order to teach the number *zero*, called by the children *no*, *none*, or *none at all*. Have the proper figure written. We do not like the term *naught*; in the first place children invariably corrupt it into *aught*, and in the second it cannot be used adjectively, the same as other numbers. We prefer, therefore, the term *zero*. Thus teach the numbers, 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9.

SECOND STEP.—Pass the tenth ball to the front and ask, How many balls? Ans.: Ten.

Have we a figure to write *ten*? No.

What do we do? We substitute *one* medium ball for *ten* small balls as a *tally*; we call that tally 1 *ten*.

Write 1 under the second wire and call it 1 *ten*; mark the difference between 1 *one* and 1 *ten*. Next write 1 upon the school blackboard, and ask,—

How much did I write? Ans.: 1.

What 1,—1 *one*, or 1 *ten*? We cannot tell.

How will we be able to tell? Where are the *tens* upon the frame? On the second wire.

The figure 1, in order to be 1 *ten*, must then be in the second place. How do we get in the second place? Look to the frame: how many *ones* have we beside the 1 *ten*? None (*zero*).

Now suppose that we write upon the school blackboard zero *ones* to the right of the figure 1 already written; does the figure 1 not advance to the second place? Yes.

And does it not become 1 *ten*? Yes.

THIRD STEP.—Combine *units* and *tens*, avoiding the use of as yet of the abbreviated names eleven, etc., but use *ten* and *one*, etc. Proceed to 99, avoiding all abbreviated names, such as twenty, for which you use *two tens*; twenty-one, for which you use *two tens and one*.

FOURTH STEP.—The numbers being learned up to 99 inclusively, teach the abbreviated names, and show as much as possible how these names have been introduced; for instance, in *two-tens*, *two* has been *ty*; hence, *twenty*, further corrupted into *twenty*. Show how *and* has been omitted in *twenty and one*, etc.; also mark the difference between *twenty-four* and *fourteen*, as to the place of the units.

FIFTH STEP.—Add the *hundreds* by introducing them as a new *tally* instead of 10 *tens*.

SIXTH STEP.—Teach in a similar manner the period of the thousands.

SEVENTH STEP.—Combine both periods.

EIGHTH STEP.—Proceed similarly with all the following periods.

Mark well, that in writing numbers we use no periods,—only orders; but that in reading numbers we use periods, the same as we say, Henry, Thomas, and Urias Miles; Henry, Thomas, and Urias Towers; Henry, Thomas, and Urias Ulrich.

Cheboygan, Mich., 1886.

— Christianity and republicanism are both individualism.

QUESTION DRAWER.

Communications for this Department should be addressed to QUESTION DRAWER, 3 Somerset Street, Boston, Mass.

"I have a large class of rather dull pupils, averaging about twelve years of age. They seem to need constant drill on the 'three R's.' Is it advisable for me to attempt anything in the line of object-lessons or elementary science?"

—, *Niagara Co., N. Y.*

A. E. M.

The first work of every teacher, with new pupils, should be to ascertain whether or not they *know how to learn* properly. Pupils of the ages of those mentioned, who are dull, cannot have had such development of their powers of acquiring knowledge as to fit them for learning anything successfully,—not even by "drill on the three R's."

A proper training by means of objects, not a teaching of facts merely, but a training in the use of their own powers of observation that will enable them to see readily, distinguish clearly, and describe correctly, will prepare them for learning the "three R's" more intelligently than by any "drill" on these subjects alone. Therefore, in answer to the question, I would say *it is advisable* for you to attempt something in the line of object-teaching, if you know how to lead children to teach themselves, how to bring their minds in contact with things through every sense by which knowledge of them may be gained.

N. A. CALKINS, *Assist. Supt. of Schools, N. Y. City.*

"When I began my work last fall I considered myself a strong healthy woman, but I find that I am 'giving out.' I am physically so tired at the close of school that I find it necessary to devote the balance of my day to rest rather than to reading and study. Worse than all, my lungs and throat seem to be failing. Is there any remedy, or must I 'break down' like so many other teachers?"

A WEARY SCHOOLMARM.

—, *Conn.*

There is a remedy which is simple enough after you have learned to use it. Do not stand so much, and talk less. You regard your pupils as enemies rather than as allies, and you constitute yourself lecturer instead of guide. Trust and befriend the children. Treat them politely. Do not let them regard you as they do the policeman. If your pupils are young, adopt some merit system simply as an aid to their memories. If they are too old for that, appeal to the desire which most children have to be considered well-bred. Never let your pupils know that their conduct annoys you; but make them feel that they have shown you, by their actions, how sadly their manners have been neglected. With such a sentiment established in the school, you may safely keep your seat a part of the time.

There is little excuse for the teacher who ruins her voice in the school-room. Speak *always* in a low, clear voice if you wish to maintain order and quiet; and, what is more important, if you wish to have the respect of your pupils. The child expressed a universal senti-

ment who said, "It is terrible hard to be good where you have one of those screaming, stamping teachers." Beginners are apt to think they must be eternally talking to their pupils and telling them to "sit up and be quiet." Oftentimes a shake of the head or a smile will prove more effective than many words.

"What can I do to keep my school-room tidy when it is occupied by sixty restless boys and girls, who leave a trail of mud to mark their entrance every morning, and of waste-paper to mark their exit every night?"

C. F. R.

—, *N. J.*

This is, indeed, an important question, for you have in training many future housekeepers of both sexes, and their weal or woe depends, vastly more than people think, on the personal habits formed in childhood. Provide a door-mat, and insist that all wipe their feet on entering the school-room. Induce all the children to furnish themselves with small bags, closed at the top by a string. Have these tied on to the frame of the desk, and insist that they receive all waste material. Pass the waste-basket two or three times a week, and have the bags emptied. Get a brush and dust-pan; and if any pupil fails to keep the floor about his desk perfectly clean, have him "brush up" before he leaves the school-room.

Never dismiss your school until every desk is in order and the floor free from litter of any kind. Make your own desk and your general care of the school-room an example. Above all, cultivate in your school a sentiment in favor of personal neatness,—a sentiment which cannot fail to disgrace slovenly pupils.

"My ten-year-old girls are so tired of their Readers that the reading lesson has become an irksome task for us all. What can I do to make the work profitable and pleasant?"

F. C. G.

—, *Mass.*

If your aim is to teach the children to read, you must instruct them in reading, and the sooner you lay aside those "Readers" the better. Get some magazines to use in their stead. Back numbers of the *Wide Awake* can be had for a dollar a dozen, and a few pennies apiece from the children will furnish matter. It will be your own fault if you do not have as enthusiastic and intelligent a reading class as any teacher could desire. Inspire your pupils with a love for good books and teach them what to read. Tell them something about Longfellow. Read to them some of his poems and see how eager they are to hear more of "Hiawatha," and to repeat together "Paul Revere's Ride" and "The Children's Hour." Read Hawthorne's *Wonder Book*, and tell them the story of the man who wrote it. Use Irving's *Sketch Book*, and show them the beauties of *Snow-bound*. To accomplish the end it is necessary that there be some regular time for this reading, and the last fifteen minutes of each school-day cannot be more wisely spent than with the best authors.

METHODS.

WRITING STORIES UPON SLATES.

This may be managed in a variety of ways, viz.: Let the children write each sentence as fast as developed. In this case all the stories will be the same. This should be done quite frequently, in order to give the teacher a better opportunity to help pupils form correct expressions. Another way is to have the class observe the picture, and then have the children make stories by writing answers to suggestive questions which the teacher places on the blackboard; or the teacher may offer a few suggestions, just to arouse a train of thought, and then let the children write. This last method produces a greater variety of expression, and allows the individuality of the pupils to become more prominent.

Again advancing, let the pupils observe the picture closely for a few moments, and then write a story without any suggestive questions from the teacher. This is the highest step to be reached by means of pictures, and should not be required of pupils until they have had considerable practice in the work preceding.

The stories will be found to be curiously unlike, although the subject is the same for all. In this exercise the pupil's imagination has full play, and the stories produced clearly show the part which that faculty performs in the work of each child. One child, with little imaginative power, will write a tame description of the objects in the picture, and be happy and contented with his prosaic production. Another, with a vivid imagination, will not only describe objects, but will invest them with varied qualities and characteristics, and give fanciful reasons for the relations they seem to bear to one another.

LOUIS H. MARVEL.

WRITING.

FINGER EXERCISES.

Before the pupil is taught letter-making, he should be patiently trained in performing certain elementary movements of the hand and fingers.

Exercises requiring him to separate the fingers into two groups, and training him to move each of the two groups independently of other parts of the hand, should be systematically practiced.

The thumb, with the first and second fingers, may be termed the "*grip*," the third and fourth fingers the "*rest*." The first exercise is to separate the *grip* and *rest* widely,—to repeat the movement by count till it can be quickly and easily performed. Next follow movements in raising and lowering (contracting and extending) separately the *grip* and *rest*.

When the child has obtained control of these two parts of the hand so that he can move them independently of each other, the training in pencil-holding should

begin. The chart, the teacher's hand; and those pupils who succeed first and best in getting the proper position will serve as models for the class.

A great advantage will be gained if a few of the more successful pupils are placed in line before the other pupils to practice with them and exemplify the correct exercise. The pupil who succeeds best in the attainment of a proper manner of writing may be selected as a model and placed at a table of proper height in view of the whole class.—*Supt. W. E. Anderson, Milwaukee.*

SPELLING.

Spell the following homonyms: To, two, too; sun, son; no, know; dear, deer; be, bee; here, hear; all, awl; their, there.

Spell the homonyms: Blue, blew; one, won; would, wood; told, tolled; eight, ate; sea, see; pair, pare, pear; pane, pain; sale, sail; write, right; red, read; cellar, seller; steal, steel; by, buy; nun, none; cells, sells; cent, sent, scent; tax, tacks; dyed, died; pray, prey; ought, aught; in, inn; our, hour; new, knew; fair, fare; bear, bare; vale, veil; pail, pale; sore, soar; sight, cite, site; lain, lane; road, rode, rowed; week, weak; whole, hole; him, hymn; the, thee; bell, belle; fourth, forth.

The pupils should be taught all the words in the text-books used, all homonyms whose cognates occur in these limits, and learn to spell names of articles of food and clothing, names of objects in and about the school house and grounds, and learn to use the dictionary.

SUGGESTIONS.

Each teacher should select daily from the text-books used the list of words her pupils are to spell, and keep the list, date, and the number of pupils who missed each word, if any.

Pupils in first grade should be responsible for the long and short vowel sounds, and their diacritical marking.

The pupils of the second grade should review the work of the first, and be responsible for the occasional vowel sounds and their diacritical marking.

The pupils of the third grade should be responsible for all of the elementary sounds and their diacritical marking.

It is recommended that pupils be required to prepare two written lessons, then spell them orally, as a review, continuing that order. A combination of written and oral work is preferable to the exclusive work of either.

In oral spelling, the pupil is expected to pronounce each word distinctly before attempting to spell it; to pronounce each syllable distinctly after spelling it; and, finally, to pronounce the whole word.—*D. C. Tillotson, Supt. of Schools, Topeka, Kansas.*

— Electricity is the soul of the earth.—*Carlyle.*

SUPPLEMENTARY READING.

DEATH OF LITTLE NELL.

For she was dead. There, upon her little bed, she lay at rest. The solemn stillness was no marvel now.

She was dead. No sleep so beautiful and calm, so free from trace of pain, so fair to look upon. She seemed a creature fresh from the hand of God, and waiting for the breath of life,—not one who had lived and suffered death.

Her couch was dressed with, here and there, some winter berries and green leaves, gathered in a spot she had been used to favor. "When I die, put near me something that has loved the light, and had the sky above it always." These were her words.

She was dead. Dear, gentle, patient, noble Nell was dead. Her little bird,—a poor slight thing the pressure of a finger would have crushed,—was stirring nimbly in its cage, and the strong heart of its child-mistress was mute and motionless forever.

Where were the traces of her early cares, her sufferings, and fatigues? All gone. His was the true death before their eyes. Sorrow was dead indeed in her, but peace and perfect happiness were born, imaged in her tranquil beauty and profound repose.

And still her former self lay there, unaltered in this change. Yes; the old fireside had smiled on that same sweet face; it had passed like a dream through haunts of misery and care; at the door of the poor schoolmaster on the summer evening,—before the furnace-fire on the cold, wet night,—at the still, dying boy, there had been the same mild, lovely look. So shall we know the angels in their majesty, after death.

The old man held one languid arm in his, and kept the small hand tight folded to his breast, for warmth. It was the hand she had stretched out to him with her last smile,—the hand that had led him on through all their wanderings. Ever and anon he pressed it to his lips, then hugged it to his breast again, murmuring that it was warmer now,—and, as he said it, he looked in agony to those who stood around, as if imploring them to help her.

She was dead, and past all help, or need of it. The ancient rooms she had seemed to fill with life, even while her own was ebbing fast,—the garden she had tended,—the eyes she had gladdened,—the noiseless haunts of many a thoughtless hour,—the paths she had trodden as if it were but yesterday, could know her no more.

"It is not," said the schoolmaster, as he bent down to kiss her on her cheek, and gave his tears free vent: "it is not in this world that heaven's justice ends. Think what it is compared with the world to which her young spirit has winged its early flight, and say, if one deliberate wish, expressed in solemn terms above this

bed, could call her back to life, which of us would utter it!"—*From Dickens' Old Curiosity Shop.*

TRUE GENTLEMEN.

"I beg your pardon?" and, with a smile and a touch of his hat, Harry Edmon handed to an old man, against whom he had accidentally stumbled, the cane which he had knocked from his hand. "I hope I did not hurt you! We were playing too roughly."

"Not a bit," said the old man. "Boys will be boys, and it's best they should be. You didn't harm me."

"I'm glad to hear it," and lifting his hat again, Harry turned to join the playmates with whom he had been frolicking at the time of the accident.

"What do you raise your hat to that old fellow for?" asked his companion, Charlie Gray. "He is only Old Giles, the Huckster."

"That makes no difference," said Harry. "The question is not whether he is a gentleman, but whether I am one; and no true gentleman will be less polite to a man because he wears a shabby coat or hawks vegetables through the streets, instead of sitting in a counting house."

Which was right?—*The Helping Hand.*

MY COUNTRY.

I love my country's vine clad hills,
Her thousand bright and gushing rills,
Her sunshine and her storms;
Her rough and rugged rocks that rear
Their hoary heads high in the air
In wild, fantastic forms.

I love her rivers deep and wide,
Those mighty streams that seaward glide
To seek the ocean's breast;
Her smiling fields, her flowery dales,
Her shady dells, her pleasant vales,
Abodes of peaceful rest.

I love her forests, dark and lone,
For there the wild-bird's merry tone
I hear from morn to night;
And lovelier flowers are there, I ween,
Than e'er in eastern lands were seen,
In varied colors bright.

Her forests and her valleys fair,
Her flowers that scent the morning air,
All have their charms for me;
But more I love my country's name,
Those words that echo deathless fame,
The Land of Liberty!

— *Anon.*

FRIDAY AFTERNOONS AND SOCIAL HOURS.

These Exercises may be used as Readings or Recitations. The Editor will be glad to receive contributions from teachers and others.

THE KINDLY WINTER.

The snow lies deep upon the ground
In coat of mail the pools are bound ;
The hungry rooks in squadrons fly,
And winds are slumbering in the sky.

Drowsily the snow-flakes fall ;
The robin on the garden-wall
Looks wistful at our window pane,
The customary crumb to gain.

Pile up the fire ! the winter wind,
Although it nip, is not unkind ;
And winter days, though dark, can bring
As many pleasures as the spring.

The winter is a friend of mine ;
His step is light, his eyeballs shine ;
His cheek is ruddy as the morn ;
He carols like the lark in corn.

His tread is brisk upon the snows,
His pulses gallop as he goes ;
He hath a smile upon his lips,
With songs and welcomes, jests and quips.

'Tis he that feeds the April buds ;
'Tis he that clothes the summer woods ;
'Tis he makes plump the autumn grain ;
And loads with wealth the creaking wain.

Pile up the fire ! and ere he go,
Our blessings on his head shall flow,—
The hale old winter, bleak and sear,
The friend and father of the year.

—Charles Mackay.

DESCRIPTION OF A MIDNIGHT MURDER.

'Twas night ! the stars were shrouded in a vail of mist ; a clouded canopy o'erhung the world ; the vivid lightnings flashed and shook their fiery darts upon the earth ; the deep-toned thunder rolled along the vaulted sky ; the elements were in wild commotion ; the storm-spirit howled in the air ; the winds whistled ; the hail-stones fell like leaden balls ; the huge undulations of the ocean dashed upon the rock-bound shore, and torrents leaped from mountain-tops ; when the murderer sprang from his sleepless couch with vengeance on his brow, murder in his heart, and the fell instrument of destruction in his hand. The storm increased ; the

lightnings flashed with brighter glare ; the thunder growled with deeper energy ; the winds whistled with a wilder fury ; the confusion of the hour was congenial to his soul, and the stormy passions which raged in his bosom. He clenched his weapon with a sterner grasp. A demoniac smile gathered on his lip ; he grated his teeth ; raised his arm ; sprang with a yell of triumph upon his victim, and relentlessly killed,—a *musquito* !

RECITATION FOR A SMALL BOY.

To the audience in front :

You think I do not dare to talk
Because I am so little,
But every boy must learn to walk
Before he learns to whittle.

To the audience at the right :

When little Henry Clay was young,
He was afraid and Bashful,
But when he learned to use his tongue
He used it very rashful.

To the audience at the left :

When Daniel Webster first began,
He could not speak a letter ;
But, when he grew to be a man,
He did a good deal better.

To teacher or chairman on platform :

So every boy should do his best,
No matter where he stands, sir ;
And now I think I'll take a rest
And let you clap your hands, sir.

—Eugene J. Hall.

BUGLE SONG.

The splendor falls on castle walls
And snowy summits old in story ;
The long light shakes across the lakes,
And the wild cataract leaps in glory.
Blow, bugle, blow ; set the wild echoes flying :
Blow, bugle ; answer, echoes, dying, dying, dying.

O hark, O hear ! how thin and clear,
And thinner, clearer, further going ;
O sweet and far, from cliff and scar,
The horns of Elfland faintly blowing !
Blow, let us hear the purple glens replying :
Blow, bugle ; answer, echoes, dying, dying, dying.

O love, they die in yon rich sky,
They faint on hill or field or river ;
Our echoes roll from soul to soul,
And grow forever and forever.
Blow, bugle, blow, set the wild echoes flying,
And answer echoes,—answer, dying, dying, dying.

—Tennyson.

SINGING IN THE MORNING.

D. BACHELLOR.

1. Sing-ing in the morn-ing, Singing thro' the day, Singing at the hearth-stone,
 2. Sing-ing at the sun-set, Singing in the eve, Singing with re-joice-ing,
 3. Cares may come to vex us, Burdens may op-press, Time may bring us trou-ble,

Sing-ing on our way; Sing-ing at our la-bors, Sing-ing in our rest,
 Sing-ing when we grieve; Sing-ing cheers the lone-ly, Singing soothes the sad,
 Treas-ures may be less; Yet with fond com-pan-ions, Loved and cherished long,

Sing-ing we are thank-ful, Sing-ing we are blest. Sing-ing, sing-ing,
 Sing-ing makes us gen-tle, Sing-ing makes us glad.
 All our sor-rows van-ish, Charmed a-way by song.

Singing in the morn-ing, Sing-ing, sing-ing, Sing-ing thro' the day; Sing-ing in the

morn-ing, Singing thro' the day; Mu-sic is a bless-ing, Use it when we may.

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From "The School Music Journal."

RECITATION,—WHY WE COME TO SCHOOL.

(For fourteen pupils.)

1. "What is the end of study? Why that to know, which else we should not know." —*Shakespeare.*
2. "I would rather excel others in knowledge than in power." —*Addison.*
3. Knowledge comes of learning well retained. —*Dante.*
4. The only jewel which will not decay is knowledge. —*Langford.*
5. Knowledge, in truth, is the great sun in the firmament. —*Webster.*
6. He who binds his soul to knowledge steals the key of heaven. —*Willis.*
7. Every addition to true knowledge is an addition to human power. —*Mann.*

8. Knowledge is the antidote to fear. —*Emerson.*
9. The door step to the temple of wisdom is a knowledge of our own ignorance. —*Spurgeon.*
10. Knowledge is of two kinds. We know a subject ourselves, and we know where we can get information upon it. —*Sam Johnson.*
11. By knowledge we do learn ourselves to know, And what to man, and what to God we owe. —*Spencer.*
12. A life of knowledge is not often a life of injury and crime. —*Sydney Smith.*
13. Ignorance is the curse of God; knowledge, the wing wherewith we fly to heaven. —*Shakespeare.*
14. The maxim, "Know thyself," does not suffice. Know others, know them well,—that's my advice. —*Wenander.*

NOTES AND QUERIES.

Questions and answers for the Notes and Queries should reach us by the first of each month to insure publication in the following number.

We desire that our patrons should consider themselves at liberty to take part in the discussions of the Notes and Queries. You are invited to send in such questions as you desire to have answered; we also solicit answers to questions given.

ALL COMMUNICATIONS FOR THIS DEPARTMENT MUST BE SENT TO THE EDITOR, 3 SOMERSET STREET, BOSTON, MASS.

ANSWERS TO QUERIES.

72. What was the first month of the year before the reformation of the Roman calendar?

March was the first month in the early Roman calendar. By the Julian calendar, established by Julius Caesar, 46 B.C., the months were reconstructed: the Roman year, which began March 1 and had but ten months, being changed to Jan. 1, and two months added. Thirty-one days were given to the 1st, 3d, 5th, 7th, 8th, 10th, and 12th months, and thirty days each to the rest, except Feb., which on every fourth year received an intercalary day, made by the sexto Calendas Martius, whence "leap year" came to be called Bissextile. As the Julian year had $365\frac{1}{4}$ days, its length exceeded the true solar year by 11 minutes, 14 seconds; so that the equinox in the course of centuries fell back several days. To correct this error, Pope Gregory XIII. in 1582 reformed the calendar by suppressing ten days, restoring the equinox to March 21. The Gregorian calendar also made every year which is divisible by four without a remainder, a leap year, except the centennial years, which are only leap years when the first two figures are divisible by four; thus 1600 was a leap year, 1700, 1800, and 1900 common years, 2000 a leap year, etc. The length of the mean year is 365 days, 5 hours, 49 min., 12 sec.; exceeding the true solar year nearly 26 seconds, which error amounts to 1 day in 3325 years.

LOU VAN E., *Everest, Dak. Ter.*

83 *Arithmetical Enigma*,—

1, Unit; 2, Line; 3, Surface; 4, Solid; 5, Minus; 6, Plus; 7, Fraction; 8, Fathom; 9, Pace; 10, Barleycorn; 11, Penny; 12, Half; 13, Ton; 14, One; 15, Chord.

My whole is "Multiply the circumference by one-half the radius"

ABBIE E. C., *Milford, N. H.*

Credit to E. H., Hinsdale, N. H.; L. M. W., Farmington, Ct.; and K. S. L., Selkirk, N. Y.

84. What was Prince Albert's surname?

Prince Albert's surname was Guelph. H. M. F., *Peosta, Ia.*

85. Give a comprehensive explanation of the gain or loss of a day in passing either east or west around the earth.

The gain or loss of a day in going around the earth is the result of a few simple facts, as follows: The sun appears to revolve around the earth from east to west, in twenty-four hours. If a person travels east a short distance in one day, the sun will not have to appear to make quite a whole revolution to be in the same relative position that it was in when he started. He will therefore have gained a small amount of time. For the same reason, by going farther he will gain more, until by the time he has reached the starting-point he will have gained one whole day. For opposite reasons he would lose one day by going around the earth to the west.

Another explanation: If a man could travel west around the earth in twenty-four hours, keeping on the meridian with the sun, he would reach the starting-point, the same time, by his time, that he started, but one day later by the true time; he would have lost one day. For opposite reasons, he would gain one day by going east.

A. C. AMES, *Powell, Neb.*

86. Explain the government of the Sandwich Islands.

The government is a limited monarchy. The legislative function is exercised by representatives chosen by the people.

JOSIE R., *Woodville, O.*

89. How would you explain to pupils the differences between living and non-living matter?

Take an object of each, such as stone (non-living) and tree (living). The non-living matter is formed and becomes larger by addition to the outside. The living matter originates from parents; grows and develops by taking food into itself, which food it changes so that it becomes a part of itself. In non-living matter, all parts are alike; in living matter, parts are unlike. Non-living matter does not change; living matter changes, and finally dies.

JOSIE R., *Woodville, O.*

Another answer is: Living or organic beings are composed of different parts or organs, each having its own functions to perform, and growing by growth of these organs. Non-living or inorganic bodies are homogeneous,—that is, alike all through, each part like all the rest,—and grow by accretions on the outside.

A. C. A., *Powell, Neb.*

90. Who is the author of the lines,—

"Full many a shaft at random sent
Hits mark the archer little meant,
Full many a word at random spoken
May soothe or wound the heart that's broken"?

A. A. P., *Brooklyn, N. Y.*

I find them slightly different in Walter Scott's poem, "The Lord of the Isles," in the 5th Canto, 18th stanza. The following is the correct quotation:

"Oh, many a shaft at random sent
Finds mark the archer little meant!
And many a word at random spoken
May sooth, or wound, a heart that's broken."

M. I. P., *Chelsea.*

Credit to Minnie B. P., Parish, N. Y.

91. When is the proper time to begin the explanation of fractions to pupils studying arithmetic?

Most teachers find that whole numbers and fractions can be taught profitably at the same time.

E. W. S.

92. Where are the Mts. Erebus and Terror, and when and by whom were they discovered?

In 1840 Captain Ross, who was exploring in and about the Antarctic regions, penetrated to about latitude 79 degrees; here he found two mountains 12,000 feet high. He named them Erebus and Terror, after two of his vessels. BESSIE S., *Jersey City, N. J.*

Credit to H. M. G., Rohrer'sville, Md.; A. C. A., Powell, Neb.

93. Who is the author of the following lines:

"The human heart is like a mill,—it goeth round and round;
If it has nothing else to grind, it must itself be ground."

Henry W. Longfellow is the author.

S.

98. What is the capital of Dakota?

Bismarck is the capital of Dakota. JOSIE R., *Woodville, O.*

Credit to E. H. R., No. Rochester, Mass., and Lou Van E., Everest, Dak. Ter.

99. How may we acquire the power of right thinking, and of arriving at just conclusions?

By reading deliberately able and comprehensive works, by meditating deeply and carefully. Read such books as the legal and political arguments of Chief Justice Marshall and Alexander Hamilton, and *Burke's Reflections*, and also study rhetoric and geometry.

GEO. MANNING.

100. There is one place only in the United States where four of its divisions into territories and States corner. Where is this place, and how is it marked?

Colorado, New Mexico, Arizona, and Utah corner, and the San Juan river flows through the corner. H. M. F., *Peosta, Ia.*

Credit to L. W., Connecticut; A. C. A., Powell, Dak. Ter.; Geo. F. Manning, Mich.

103. Why is Boston nicknamed "Modern Athens" and "The Hub"?

Boston is probably named "Modern Athens" because it is the center of literature, art, and science in America. "The Hub," I think, originated with Oliver W. Holmes. A. C. A., *Nebraska.*

104. In teaching the early history of Massachusetts, how would you explain to children the difference between "The Pilgrims" and "The Puritans"?

The Puritans were a religious sect in England who were not satisfied with the extent of the reformation in church affairs brought about by Henry VII. They insisted upon still farther departure from the Roman Catholic religion, and the introduction of purer forms of worship. They were men of austere morality and strict integrity, and no civil power on earth could make them yield a tithe of their conviction. The Puritans gradually increased in number and influence. With Cromwell and the Commonwealth they came into complete control.

The Pilgrims were such of the Puritans as could no longer endure the interference of the national church, in their spiritual affairs, and who, for conscience sake, sought homes in a strange land where they might enjoy freedom to worship God. They left England and sought homes in Holland. From there they went to Leyden, and finally to America. Their wanderings gave them the name of Pilgrims.

JOSIE R, Woodville, Ohio.

105. Who was the first postmaster-general of the United States? The first postmaster-general was Samuel Osgood.

F. C. K., Cato, N. Y.

Credit to E. H. R., No. Rochester, Mass.

106. What five vice-presidents of the United States have died during their term of office?

George Clinton, 1812; Eldridge Gerry, 1814; Wm. R. King 1853; Henry Wilson; and Thomas A. Hendricks, 1885.

F. C. K., Cato, N. Y.

109. What early American explorer wrote a "History of the World" while confined in the London Tower?

Sir Walter Raleigh, accused of a conspiracy to raise Lady Arabella Stuart to the throne, was committed Nov. 17, 1603, and kept thirteen years, and wrote *History of the World* in 1614,—his most important work.

F. C. K., Cato, N. Y.

Credit to K. S. L., Selkirk, N. Y.

110. Where would a line drawn due northwest from the equator and extended as far as possible, terminate?

A line starting at a point on the equator and extending northwest would reach the north pole, if it continued to go northwest all the way; but if it started northwest and extended straight ahead it would return to the starting-point. *My first statement is not quite true.* The line would continually approach toward the north pole, but never reach it. It would come infinitely near the pole.

A. C. A., Powell, Neb.

Everything between the equator and north pole is *north* of the equator; between it and the south pole, *south*.

LOU VAN E., Everest, D. T.

QUERIES.

152. In the reign of what Roman emperor did public churches begin to be built?

153. When was the first astronomical observatory erected in Europe, and where?

154. What five great potentates reigned in Europe contemporaneously in the sixteenth century?

155. What was the distinguishing characteristic of the House of Stuart?

156. When and in what country was paper invented?

157. In what century did bells and organs begin to be used in churches?

158. What is the history of the "Field of the Cloth of Gold"?

159. What place was called the "Little Gibraltar," and why?

160. *Literary Enigma*,—

I am composed of 65 letters:

My 65, 14, 5, 60, 46, 9, 63, is a noted essayist.

My 16, 7, 12, 18, 26, 30, 50, 17, 28, 41, 54, 10, is the author of *Eugene Aram*.

My 15, 9, 52, 53, 11, 20, 45, is this author's best novel.

My 64, 2, 13, 33, 21, 49, 30, is called the "Father of Poetry."

My 2, 7, 57, 12, 31, 17, is the author of *Origin of Species*.

My 1, 4, 29, 39, 42, 54, 62, is one of Scott's novels.

My 6, 60, 24, 3, 10, 44, is an American poet.

My 47, 48, 43, 63, 38, 8, 54, 58, 46, 61, 46, is one of his best poems.

My 40, 56, 51, 63, 46, 18, 1, 55, 8, is the author of *Battle of Books*.

My 1, 30, 4, 34, 39, 32, is a noted biographer.

My 19, 33, 32, 22, 27, 46 is the author of *Tom Brown at Oxford*.

My 23, 34, 50, 8, 54, 10, is called the "Prince of English Poets."

My 37, 59, 25, 9, 36, is the author of *Robinson Crusoe*.

My whole is an extract from Patrick Henry's speech before the Virginia Convention.

K. S. L., Selkirk, N. Y.

161. Is the following sentence correct, and if not how should it be corrected? "Have you paid your accounts?" D. O., Iowa.

162. At what point on the earth's surface can a person stand so that at any time during the day his shadow will point south, and why? D. O., Iowa.

163. What writer is known as "The Funny man of the New York Times"? A. E. C., New Hampshire.

164. What is the difference between a mineral and a metal? A. E. C.

165. What is meant by "Conservation of Energy" and "Correlation of Energy"?

AMERICAN TEACHERS' BANDS OF MERCY.



Every teacher who obtains twenty signatures to this pledge,—*"I will try to be kind to all HARMLESS living creatures, and try to protect them from cruel usage,"* and sends to Geo. T. Angell, Esq., President of Parent Band, 96 Tremont street, Boston, name of "Band" and its president, saying it is a branch of American Teachers' Band, will receive without cost,—

(1) A beautiful metallic badge.

(2) Full information what to do and how to do it.

(3) Band of Mercy melodies.

(4) Ten lessons on kindness to animals, with stories, etc.

(5) *Our Dumb Animals*, monthly paper, one year

There are, January 13, 1886, 5,120 Bands in the United States, with over 321,500 members.

604. Boston, Mass: *Brimmer School No. 2 Band*. P., L. M. Stetson; V. P., A. T. Douglass; S., S. Rothfuchs; T., M. M. McCarthy.

605. Dunlap, Ia.: P. and S., M. L. McNally.

606. First Fork, Pa.: *Daisy Band*. P. and S., Maud E. Wykoff.

607. Manchester, N. H.: *Amoskeag Band*. P., Herman Dinsmore; V. P., Charles Hardy; S., Ellen Burke; T., Belle Whiton.

608. Dalton, Minn.: *Agassiz Band*. P., Anton Thompson; S., Christina Bergeson.

609. Carlton, N. Y.: *Locust Grove Band*. P., Mary D. Wheatville.

610. Minneapolis, Minn.: *Lyndale School Band*. P., David Pell; S., Elsie Atkinson.

611. Eureka, Kas.: P. and S., W. C. Stevenson.

612. Boston, Mass.: *Quincy School No. 1 Band*. P., J. Garland; V. P., E. F. O'Kearn; T., M. Akins; S., J. A. Mahoney.

613. Fairfax, Ia.: *Sunbeam Band*. P., Mary E. Mitchell; S., Maggie Deacon; T., Etta Wilson.

614. Greene, Ia.: *Lowell Band*. P. and S., Hannah D. Shook.

615. Stanley, O.: *Morning Star Band*. P., Lizzie Burkhart; S., Sadie Reeves.

616. Manchester, Va.: *Pansy Band*. P. and S., Martin A. Harris.

617. New Canton, Va.: *James River Band*. P., M. F. Jones; S., J. M. Riddle.

618. Lock Haven, Pa.: *Union Band*. P., T. McLain; S., K. Small.

619. Hammond, Ill.: *Center School Band*. P., Wm. H. Bentley; S., Theodore A. Funk.

620. Charleston, W. Va.: *Ethel Band*. P., Nellie Hubbard; S., Ettie S. Walker.

The Kindergarten, AND PRIMARY EDUCATION.

All communications for this department should be sent to W. N. HALLMANN, La Porte, Ind.

I have still on hand four hundred copies of Dr. Seguin's celebrated *Report on Education*, which I will sell for the benefit of the Froebel Institute of North America, at 50 cents per copy. The book was originally sold for one dollar. It is a rich storehouse of new and fresh ideas on education. The proceeds of the sale go to the publication fund of the Froebel Institute of North America. W. N. HALLMANN, La Porte, Ind.

All who desire to become members of the Froebel Institute of North America will please send the annual fee of \$1.00 to the treasurer, B. E. Hantoon, Sup't. Blind Asylum, Louisville, Ky., or to the president, W. N. Hallmann, La Porte, Ind. Members are entitled to one copy of the Proceedings of the Madison meeting, a volume of about 200 pages, and will receive as a premium a copy of Seguin's celebrated *Report on Education*, donated for this purpose to the Froebel Institute.

— A correspondent asks us to say how far the occupations and devices of the kindergarten can be utilized in the school? Had I been asked how far they can be utilized in the *kindergarten*, I should have said: "Just as far as you, the teacher, understand and appreciate their scope, have entered into their meaning, and control their possibilities." I have no other answer to make concerning their utilization in the school. Were it not for the indignation that troubles the soul whenever one sees childhood, budding manhood and womanhood victimized by presumptuous incompetence, there could scarcely be a more ludicrous sight than a kindergarten or teacher caught in the meshes of occupations or devices whose bearing or significance are a mystery to her. Nor is it enough to know only what the *children* can do with these things; you must know what *you* can do with them. You must have felt their uplifting, cultivating, fertilizing influences in your own mind. You must have done with them as much more as your keener insight, your deeper feeling, your greater skill imply.

— Surely there can be no objection to the gradual and healthy transformation of the primary school, by which the latter partakes more and more of the character of the kindergarten with its steady regard for the growing manhood and womanhood, and its delicate attention to the immediate wants and needs of the child. Only good can come from such a transformation. The child's senses will receive better training, his notions and ideas will become more accurate, his language more precise, his hands more skilled, his feelings warmer, his disposition more kindly, his conscience keener, his habits better regulated, his will more fully controlled by law. Thus in all directions there is gain in this transaction from the narrow aims, inadequate means, artificial methods, and chilling mannerisms of the days that are sinking into the past.

— On the other hand, it is to be regretted that there is frequently noticeable in kindergartens and systems of kindergartens a retrograde transformation, in which the kindergarten seeks to ape the school in its inordi-

nate zeal for immediate results, for fore-ordained recitations, for Procrustean uniformity, discipline, time-tables, silence, and isolation. This retrograde tendency is, perhaps, most apparent,—certainly most appalling,—in the abuse of object-lessons, solemn talks about the gifts and occupations, and set question-and-answer fits scattered through the forenoon to tone down the children's joy. This is all wrong. The sense and language exercises of the kindergarten should never become "object-lessons," but should always come in the garb of joyous games and free intercourse with the things in question.

— "Never tell a pupil what he can discover for himself." *Never* is a long time. I do not like any of these never-rules. The only one that should be followed is this: Never make a never-rule. No one hesitates to tell a child the fire will burn; yet the child could discover this for himself. I see my neighbor's house on fire. I don't hesitate to tell him about it, although I am certain he will discover it for himself.

"These are extreme cases," you say. Yes, extreme cases are always getting in our way. They come up in school and out. They must be dealt with in school as well as out of school. Here is a boy at the board trying to solve a long and difficult problem. At the very outset he has said, "Once one is two." Don't tell him of it. He will discover it for himself after awhile. Yes, but much valuable time will have been wasted before he discovers it. Why not call his attention to the fact that he has made a slight mistake in the beginning, instead of letting him go entirely through a long process first. Let him look for it himself *then*, and he will gain all that he would by going entirely through the work before looking for it.—*Geo. F. Bass.*

— In a sprightly article on "The 'New Education' Run Mad," Charles H. Levermore in *Education* attacks President Eliot for his effort to raise the American University to a higher lead and into closer harmony with the aspirations of our age. The article throughout is of doubtful temper, quite dogmatical, and meritorious chiefly for witty sayings, such as "youthful wisecracs," "young Rehoboams," "Barnumize," "Jingo," etc. The gentleman evidently is afraid of *progress*, in which he sees only "inflation," and of the *Feitgeist* which he abhors as the "spirit of callowness." He stands open-mouthed before the tree of the "New Education," whose "branches tower toward heaven;" but his knees grow weak at the thought that "so far also its roots penetrate toward Tartarus," and he trembles in the contemplation of a dead ghost,—a spirit of active evil,—laid long ago even by the new education of Socrates, still more effectually by that of Jesus of Nazareth, of which the new education of our day is but the re-assertion and all-sided application.

KINDERGARTEN ECHOES.

— San Francisco reports twenty-two free kindergartens.

— The Milwaukee Mission Kindergarten Association has three kindergartens and a training class.

— Prof. Webe, the editor of *Wiebe's Paradise of Childhood*, died at Hamburg, December 25.

— M. Anagnos, director of the Perkins Institute and Massachusetts School for the Blind, writes concerning the value of the kindergarten:

— The first part of Baron von Marenholtz-Buelow's *Theoretical and Practical Manual* has been published at Kassel. It contains the theory of Froebel's educational scheme.

— Mrs. Elizabeth Thompson proposes the establishment of kindergarten homes for the children of destitute and criminal classes. Would that she might reach the great heart of the people with her appeal.

— Miss Hattie Davis read an excellent paper on the "Use of Kindergarten Occupations in Primary Schools" before a teachers' convention at Flint, Mich. She is rapidly winning the schools of Flint for this reform.

— Miss Sarah A. Stewart has been invited to "look the ground over" at Philadelphia. We hope she may take root there and do for the public schools of that city what she accomplished for the Milwaukee schools.

— *The Kindergarten and Drawing School Monthly*, of Toronto, is now simply *The Kindergarten*, and continues to grow. We join Prof. Ogden in his wish that "we had a good organ in the United States." Why does not somebody try to give us one?

— We acknowledge the receipt of an interesting and carefully prepared paper on "Industrial and Technological Training," by Sarah Sands Paddock. It is reprinted from the Proceedings of the National Conference of Charities and Correction. It contains a valuable summary of the subject and presents forcible arguments in its favor.

— The Chicago Free Kindergarten Association published, in January, the first number of *The Free Kindergarten*, giving an account of the work of the association, and a number of sprightly articles and stories. The total number of children enrolled in the kindergartens of this association is 1771. The training class numbers 27.

— The first annual report of the Industrial Education Association of New York gives an encouraging account of its affairs. We notice among its objects, "To study and devise methods and systems of industrial training, and to secure their introduction into schools; and, when expedient, to form special classes and schools for such instruction." One of its committees is preparing a manual of lessons,—"Lessons in Agriculture,"

by which little boys are instructed in the elements of agricultural pursuits, using a large box of earth with miniature ploughs, harrows, rakes, and hoes. Miss Jane P. Cattell, 21 University Place, New York, is secretary of the association.

— The 54th annual report of the trustees of the Perkins Institute and Massachusetts School for the Blind brings the cheering news that the work of establishing a kindergarten for the blind is progressing most hopefully. A beautiful site of more than six acres has been purchased in Roxbury, at a cost of \$30,000. The work of excavation for the foundation of a new, commodious building has begun, and the coming year will probably see it completed and equipped. This work, however, will exhaust the available funds for this purpose, but the same munificent spirit that has carried this noble work thus far will, without doubt, supply all future needs. Among the donations that have brought about the present success is one of \$10,000 by a Boston lady who refuses to be named, and another of \$5,000 by an anonymous friend of the blind.

Those interested in this great work of love should send for the stirring appeal issued by M. Anagnos, director of the institution, and pass it from hand to hand.

— In the Milwaukee public schools there are ten kindergartens, which, in spite of the inclement sharp Wisconsin winter, are attended by 980 children with eighteen teachers. One-half the children attend in the forenoon, the other half in the afternoon. The teachers are engaged for both sessions. Ten young ladies assist in the kindergarten during the forenoon, and pursue theoretical and practical studies during four afternoons of each week, under the direction of Miss McCullough. The influence of these kindergartens on the spirit and methods of the primary schools is marked and beneficial. A number of the occupations of the kindergarten are used to advantage in the primary school, and the teachers are heartily in favor of the kindergarten.

"Of the great and lasting benefits of the kindergarten with special reference to the case of the blind, we have so ample a proof and convincing testimony in facts that we need not waste many words. During the past five years Froebel's system has been introduced and practised in our school, and its results have been truly marvelous. Pupils whose faculties had been weakened and enervated by unwise indulgence or benumbed by the frost of privation, and who, sinking gradually into sluggishness and idiocy, were averse even to locomotion and unable so much as to tie the strings of their shoes, have been reclaimed and have made remarkable progress. Boys and girls who seemed entirely helpless, and had no command whatever of their hands, have been aroused to energy and activity through its ministry. Moreover, its progressive spirit has penetrated into every class-room, creeping silently into the thoughts of every teacher, and thus some of the lingering shadows of past methods have been touched by the brightness of the coming morning."

A SINGING LESSON IN THE KINDERGARTEN.

BY BESSIE E. HAILMANN.

Teacher.—I was walking down the street, one day. The sun was shining, the birds singing, the flowers blooming, the soft wind blowing; the leaves were green, and I was happy because spring had come. Soon I saw a shop, with a large door, wide open. Inside the door I could see the firelight on the walls; the men at work had their sleeves rolled up, and their arms were smutty. A horse stood near the door (cries of "Blacksmith, blacksmith,") getting a new pair of shoes; and two men were at the bellows blowing the fire. We are blacksmiths, too, and here is our fire in the center of the ring. See it; how it glows! And here are our bellows [hands in position on waists].

(1) Inhaling and exhaling,—repeated until correctly done, or signs of weariness appear,—*not too often,—better, not often enough.*

Tr. (continuing).—Well, I walked on and on, until I came to a tall, very tall house. I went into the door, and up some stairs.

(2) Rising and falling on tip-toes,—up,—up,—up; then I rested [down]; and so on through three or four repetitions. Then I peeped out of a little window [make window with first fingers and thumbs] and saw a ship sailing, sailing, sailing away [cries of "I saw a ship a-sailing,"—a favorite song], and saw the sailors on board, and we waved our handkerchiefs.

(3) Devitalizing exercises,—withdrawing of life from the hands.

All sing,—adapting motions to the words:



I saw a ship a sail-ing, a sail-ing o'er the sea, And There were four-and-twenty sail-ors a-skip-ping o'er the deck, And



it was full of pret-ty things for ba-by and for me. There were there were white and pretty mice with rings about their necks, And the



rai-sins in the ca-bin, su-gar kiss-es in the hold, And the cap-tain was a duck, with a jack-et on his back, When the



sails were made of silk, and the masts were made of gold. ship be-gan to sail, cried the cap-tain, quack, quack, quack!

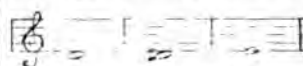
Tr. (continuing).—Then I went home, and when I shut the door I forgot and slammed it, which aroused my baby brother, and he cried so that I went up-stairs and sang him to sleep.

(4) All humming softly first, then increasing and diminishing:



Then it was dinner-time; so I had my dinner, then

dressed for an afternoon concert, and heard some beautiful music. One man played the big bass violin [imitate the motions used in playing the various instruments]; another, the violin; another, the flute.



(Similar to humming exercise.)

The teacher then goes to the piano, and having asked the children to represent the "orchestra," while she is the "leader," plays the pattern to be sung (a repetition of exercises 4 and 5), modulating with appropriate chords, and accompanying the voices with *chords* (rarely melody,—if so, melody in the background).

This kind of a lesson cannot be given *every morning*. It would lose its freshness; the children would become lax, and a generally *loose* condition would prevail. Indeed this is always a danger to be guarded against,—a slipshod way of getting over the exercises. In conducting such a practice, the teacher must keep in view constantly the desired result; *i. e., unconscious, outward-tending, self-forgetting, interested purposeful action.*

In conducting such a practice (and this is true of most *singing lessons*) the teacher must not talk (except in the story); talking, explaining, telling, introduces a foreign element and breaks the spell. Besides it is a waste of time. Three-fourths of the talking and explaining done in singing-lessons might be left out so far as its benefit is concerned, to say nothing of its positive injury in directing the mind away from the subject under consideration. For instance:

Tr.—Children, this is ta—ā—what is it? Ta—ā

Children (shouting).—Ta—ā.

Tr.—Again [repeat], again, etc.

Many good teachers use so much valuable time in this so-called musical drill (whereas it is merely a memory exercise in recognition of signs, that could be just as well acquired musically) that they have no time for breathing and voice exercises. It is wonderful how much time is gained; and, more important still, how much *musical thinking* and *feeling* can be cultivated by refraining from talking during the lesson.

A good change, having a tendency to counteract the tendency to looseness before mentioned, is to play *drill*, thus insuring precision. The objects to be attained are, the grace and harmonious blending of gesture peculiar to Delsarte, and the sure, correct, intelligent gesture of a clear, thorough understanding of the thing to be done; these objects to be attained through joyous, unself-conscious practice.

The object of the story is to arouse and stimulate the imagination. Because, when the imagination is at work, the whole being is in an enthusiastic, lively state. The muscles of the voice are relaxed, because the attention

is directed away from them. Then, too, the moral effect of a vivid representation of natural phenomena is excellent; and in the kindergarten no opportunity should be lost for giving the children a fine, keen love for its natural surroundings, and putting them in the state of mind that results from this contemplation.

WHAT FROEBEL DID FOR YOUNG CHILDREN.

[I have just been reading a little pamphlet, which was a paper read by Miss E. A. Manny at the International Health Exhibition in London, on "What Froebel did for Young Children," and I should like to extract a few passages for THE AMERICAN TEACHER. —E. P. PRABODY.]

"Froebel's idea for little children's training was freedom in the exercise of faculty under kindly guidance. We have seen what their characteristics mainly are,—bodily activity of every kind, manual power, fancy, imitative action, and loving dependence, leading to moral development.

"All these characteristics, all their opening capacities, should have room to expand and improve. We must not try to do the education of these children for them. They are educating themselves every hour and every day. But, said Froebel, we must give them opportunities for investigation and for action, and we should surround them with loving influences, which are as sun

shine to these little human plants. In the kindergarten such aims are carried out. The teaching is not direct instruction. It trains the senses and the observing powers through handling and doing; it exercises the muscles and limbs, it takes advantage of the imitative faculty; it appeals to the fancy by means of stories and talks; it works through the affections: it draws forth helpfulness and self-respect. In consequence, the children advance imperceptibly but surely in health and strength, in knowledge, in skill, and in conduct. Froebel devoted much thought to the devising and organizing of suitable occupations and games for this early age, which are most successful in application. Still it is his theory of training which is the most important matter to bear in mind."

"Again, the kindergarten ought to be looked on not as a substitute for home life, but a supplement to it; except, indeed, in the case of those neglected children in whose homes bad influences prevail. For a part of the day it offers advantages which the home does not. Owing to its gentle discipline, its large family, its practised staff, it can do in some ways more than the home alone can do as a preparation for school and for school life. Froebel then indicated a training,—an education,—for the children of three to six, singularly and carefully adapted to the main features of their growing age. By successive steps (for in the kindergarten each year

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is dealt with as on a separate level) the mothers and the teachers help them to make a real and steady advance in all directions.

In conclusion, I should like to suggest a point for discussion. Why have not Froebel's methods been more widely accepted and acted on in England? It would be very satisfactory if this conference could throw some light on the matter. Notwithstanding the increased recognition of Froebel, notwithstanding that kindergartens are multiplying, and that mothers approve their effects; notwithstanding that the educational department and some school boards have given encouragement in this direction, yet the system is looked upon in some quarters with a sort of doubtful distrust. Why should it be so? "It may partly be accounted for by the fact which must be granted, that some unsatisfactory kindergartens exist, and that there are at present comparatively few well-trained teachers. But with all allowance for this and other hindrances, among which may be reckoned the necessity for economy in schools dependent on public funds, how is it that Froebel's principles of training are not more fully taken as a basis of education for the millions of children whose early years are so often wasted or misapplied? How is it that educated mothers still leave their children to the care of uncultured nurses?"

"The question is a very simple one, and it ought to

be brought to an issue. Are children's self-educating methods right or wrong? If right, let us follow their indications; if wrong, let us continue to neglect or to work contrary to them. One could almost wish that all nurseries and infant schools, and even all kindergartens, were suddenly swept away and forgotten in order that those who direct early education might place it upon a new basis. The educational views of the present day are theoretically in favor of natural, rational training, and I fully believe that the reconstruction would be arranged in accordance with Froebel's ideas. In that case young children would have to acknowledge a debt of gratitude not only to their German benefactor, but to those who, in their country, had enabled them to prepare during a happy childhood, for a life of developed capacity, right conduct, and useful action."

VARIETIES.

— Adam was the only man who could get off a joke without some galoot saying he had heard it before.

— "Hush!" whispered a little girl to her classmates, who were laughing during prayer; "we should be polite to God."

— A bright story in grammar is told of a little school-girl. "Quarrel," she parsed, "is plural." "Why?" "Because it takes two to make one."

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— A minister asked a little boy who had been converted, "Does not the devil tell you that you are not a Christian?" "Yes, sometimes." "Well, what do you say to him?" "I tell him that, whether I am a Christian or not, it is none of his business."

— Mary was curious about relationships. A man stopping in the family often told her of the sayings of his "little step-son." One evening Mary came to him and said: "Please tell me about your door-step-son, and what made him that kind of a boy?"

— *A Good Husband.*—"I have been married now," boasted a prosy old fellow, "more than thirty years, and have never given my wife a cross word." "That's because you never dared, uncle," said a little nephew, who lived with them. "If you had, auntie would have made you jump."

— This, says our English contemporary and namesake, is a slice out of the verbal part of a recent examination for a good civil service post: "What is the principal property of heat?" *Ans.*—"To expand. "And what of cold?" *Ans.*—"To contract." "Give me an example." *Ans.*—"The days are long in summer and short in winter."

— A little Swedish girl, walking with her father on a starry night, was so attracted by the brilliancy of the sky, all lit up with twinkling stars from one end to the other, that she seemed to be lost in her thinking. Her father asked what

she was thinking of so intently. Her answer was, "I was just thinking, if the *wrong side* of heaven is so glorious, what must the *right side* be?"

— There be none so lowly
But have some angel touch
Yet, nursing love's unholy
We live for self too much.
There's no dearth of kindness
In this world of ours;
Only in our blindness,
We gather thorns for flowers.

—Gerald Massey (*Eng.*, 1828).

— A bright youth, undergoing examination a few days since for admission to one of the departments, found himself confronted with the question, "What is the distance from the earth to the sun?" Not having the exact number of miles with him, he wrote in reply: "I am unable to state accurately, but don't believe the sun is near enough to interfere with a proper performance of my duties, if I get this clerkship." He got it.

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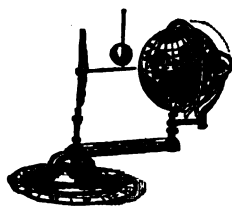
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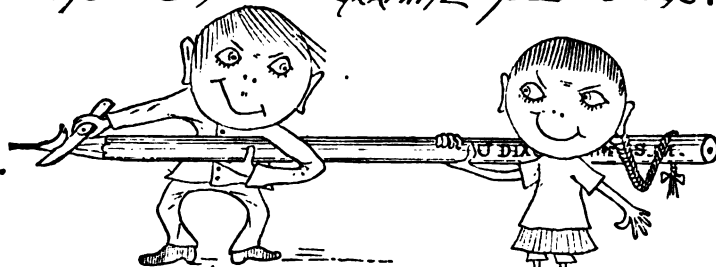
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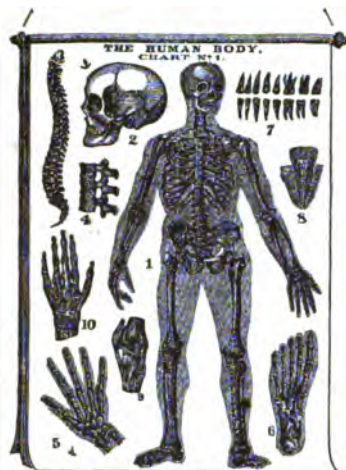
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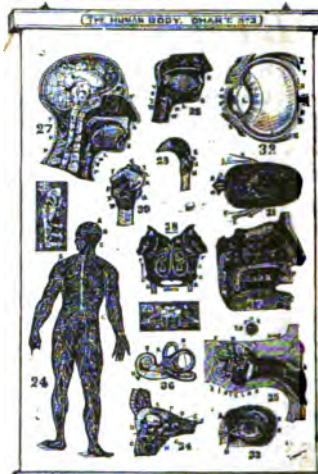
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EDITORIAL NOTES.

TOPEKA, Kansas, July 13.

BAR HARBOR, Maine, July 6.

CULTIVATE the acquaintance of the earliest flowers.

THE best educational journal is the teacher's best friend.

ATTEND a teachers' institute, if you possibly can, this spring.

WHAT work on the Science of Teaching have you read this winter?

VISIT the nearest normal school for a day, whether you are a graduate or not.

BE loyal to your superintendent or supervising committee. It is a duty,—and it pays.

DO not expect or desire the children to be "old folk" in conduct any more than in maturity of mind.

READ the reports of some city superintendent, or State educational leader. There is food in them.

OUR methods are molting, and some schools are not inviting with the old ways disappearing before, intelligent new ones come.

THE child's tears over his blunders or heedless mistakes furnish a rainbow in the sunshine of his smiles, if the teacher has the tact to help rather than scold in such an hour.

MAKE the school so interesting that children will remain at school till July. In rural districts it is next to an impossibility, but the school suffers so much from untimely withdrawal that we must strive hard to keep them in.

MRS. BERGEN's botany articles, of which the first appears with this number, are as neat primary school talks as one could desire, and they furnish more of the best with keenest discrimination than we ever saw in the same space on this subject.

THE teacher is the last person in the world who can afford to be despondent. It demoralizes a school in a half-day to such an extent as to require a term perhaps to remedy it. Life has much of joy for her who moulds mind and character.

LOCAL interference with school management is a great evil in the country, especially where a young lady teaches in her own district. Is there any way to relieve the worthy teacher of the annoyance of unjust, unreasonable, and sometimes cruel criticism?

WE have never seen so much made of the art of punctuation in the same number of lines as in Miss Jones's article. You should preserve this, even if you do not keep all the

numbers. The history of an art that is so essential in primary school work should be known.

CORRECTION.—The short article on "The Use of the Irregular Verb," in the March number of *THE TEACHER*, should have been credited to *Bright's Graded Instruction in English Language*, instead of to Wm. M. Peck, A.M. How this error occurred is a mystery.—ED.

KATE L. BROWN's "Sources of Failure," in this number, is worth more than can easily be expressed. Read it through every Friday night, until you are as familiar with it as with "two twos are four." It is comforting, inspiring, and true to life. You are not obliged to accept her comparative estimate of country and city children.

THE teacher's manner is a vital matter. Committees do no place proper estimate upon it, in choice of a teacher. Her spirit and bearing make the pupils like or dislike her. There is little learned profitably when a teacher's manner is repulsive. Any teacher can, if she will, make herself reasonably attractive to the pupils. Success depends upon it.

You must have a definite purpose in order to succeed. The rule of a good editor is to have something specially prominent in each issue, so that whoever loses it will be literally the poorer for the loss, so each lesson and each recitation should be both a completed whole and a part of a system. There should be some reason for teaching that special subject at that particular time. It must be entirely clear to yourself, to your class, and to any visitor, for a half-hour. just what you are trying to do.

TAKE your choice, but do not fail to attend either the American Institute at Bar Harbor or the National Educational Association at Topeka. It is the cheapest way to get a vacation. There is professional inspiration in it for twelve months to come. There is acquaintance with the leading minds in the profession that is invaluable to the teacher. Rest and recreation, pleasure and profit combine in this opportunity to see the coast of rock-bound Maine, or the grandeur of the vast Southwest.

MENTAL development is only secured by diligent application, and the teacher who fails to impress upon her pupils the importance and value of hard study, which we believe to be a healthy exercise, if continued only for a reasonable length of time continuously, fails to perform a duty which cannot be safely overlooked. Resolute purposes should be fostered and stimulated in the mind of a child as soon as it has the strength to make mental effort. Plodding is the high road to success, and any system of teaching that seeks to ignore continuous and earnest work on the pupil's part is false and delusive, and will injure rather than benefit them so far as thorough scholarship is concerned.

MUCH stress is laid very properly upon the importance of presenting topics of instruction in a manner pleasing to the pupil. But it should never be forgotten that there is nothing really valuable in education that does not demand real, steady, energetic effort to secure. The purpose of the school is to discipline and develop the powers of the mind, as well as to secure the acquisition of knowledge. To do this patient labor is indispensable on the part of the pupil. We have no faith in teachers who claim to teach in "twelve oral lessons" the principles of any branch of study. It is true that a pupil may listen with delight, and perhaps catch a smattering of a subject thus superficially presented. In our view such teaching is, mostly, a waste of time, and in many cases worse than waste, as are most of the so-called "labor-saving" processes in education.

GOOD health, good cheer, and patience are never in greater demand than in the closing months of the school-year. Pupils are weary, studies have lost their attractiveness, there has to be much review which is never inspiring, and the physical condition of all is calculated to dissipate amiability. The teacher needs more nerve, self-possession, and sweetness of temper than at any other season of the year. How can she command it, since as a matter-of-fact she, too, has even more temptation to loss of interest, loss of patience, and loss of courage than the pupils. It is not an easy thing for any teacher to live through April, May, and June and not feel as though an attractive invitation into some other line of life would be accepted. Every day has its special burdens, cares, and vexation. We sympathize with you, fellow-laborers, in this great cause; but there is no way but to go forward with a more cheerful heart and resolute purpose than the circumstances warrant. There is a long vacation ahead. Live in anticipation thereof.

THE school-room ought to make the teacher the happiest, healthiest of women. It sometimes makes her quite the reverse. Children, by the buoyancy of their nature, lend vivacity, brighten thought, cheer the heart, enkindle physical warmth and glow. One may actually live longer, in the ordinary course of events, who spends five hours a day under the physical freshness and life of childhood. It may be the reverse. The teacher is to be congratulated who can prolong her life, cheer her daily duties, inspire her thought and heart, through association with the fifty little folk with whom she companions. They will sap her life, if out of sympathy with her; they will ennoble it, if their love for her is spontaneous. The cheery, merry "Good morning, teacher," and the loyalty of obedience through all the day, is helpful in every way. The teacher will be rewarded by years of health, security in service, joy in duty, if she can acquire the art, if it is not natural, of being buoyed up by the freely expressed affection of her school in act as well as word.

THE FIRST DAY.

BY CORA W. FOSTER.

Perhaps no question so much troubles the young teacher just entering the field as what shall be done the first day. She is a beginner, filled with enthusiasm, and meaning to make a success in her chosen vocation. A position in a district school has been obtained, and on Monday morning, with much inward trembling but outward composure, our young friend makes her way toward the school-house. However early she may be, there will be sure to be many eager eyes on the lookout for the "new teacher."

It is always best to have a smiling "Good morning," and a few pleasant words. That will show that you are friendly and good-natured, and will start a current of good-will in your direction.

Open school, and then in a few words say that you are glad to see so many faces, and hope that the term will be a pleasant and profitable one. Don't commence by laying out a set of rules. Then give to each of the children who can write a sheet of paper and a pencil, and tell them to write you an account of their last vacation, telling what they did, and where they went. This idea I got from a book on "Teaching," and found it worked exceedingly well.

While the writing is being done is a good time to see how well the rest can read and spell. There may be some who have never been to school, and who are not even able to spell the simplest words. Of course these must be placed in a class by themselves. Then it will be very easy to grade the rest. By this time it is half-past ten, and the little folks are ready for their fifteen minutes' recess.

When all are again in their seats, give the younger ones some interesting slate-work to take up their time, and ask a few general questions in arithmetic of the rest, and then assign work for the classes. It is a wise plan to have as few of these as possible in an ungraded school.

A rough draft of the afternoon work should be prepared during the intermission at noon, and it is well to have one of the oldest girls write out a list of the names of the pupils in the order of their seats, to save mistakes when calling on them to recite.

For the last exercise choose a writing-lesson for those who have never written anything yet. Rule four horizontal lines on the board, with an equal space between each, and ask the children to choose some word to write. Many eager hands will go up. Ask some bright-eyed little fellow his word, and require him to spell it. Then slowly write, having the children follow each line. After they have written it, go around to the separate seats, correcting any serious mistakes, and then have the word repeated many times on both sides of the slates. This will fix it firmly in the memory, and

after the lesson is finished it will be more interesting to the little ones if you say, "Now, when you get home, I want each of you to write that word. How many think they can remember?"

There is everything in a good beginning. Make up your mind to have a quiet, industrious school. The children will all like it, and will be proud of it. Try to be just to all, having no favorites, and be firm. Do not threaten, and do not pass over any wrong even once. The principal thing is to keep the children busy; then they cannot fail to be happy and interested.

PRIMARY LESSONS IN BOTANY.

BY MRS. FANNY D. BERGEN, PEABODY, MASS.

STEMS.

"You see, children these bean plantlets which have grown from the beans that we planted a little while ago, in earth which has been kept warm and moist? Some time since we learned something about the roots of plants and their use. Now let us talk about another part of a plant. What do you call this part of the little bean-plant which grows upward and bears the leaves?"

"The stem."

"Does the stem ever bear anything else besides beans?"

"Flowers."

"Yes; and after the flowers?"

"Pods, with beans in them."

"That is right. So we may remember that the business of stems is to bear leaves, flowers, and seeds, or fruits. We said that the part of the young plant which grows upward into the light is called the stem. This is true, but it is also true that many stems grow beneath the earth. What is this which I have?"

"Potato plant."

"Yes; we have here a whole plant, carefully dug up so as to preserve the roots. Let us, beginning with the leaves, name the parts of this very useful vegetable. These are?" (pointing to the leaves),—

"Leaves."

"Yes; and this, along which the leaves grow?"

"The stem."

"Right; and this?" (pointing to the subterranean stems bearing small potatoes),—

"Roots."

"No; there you are wrong. Do you see these small scales? Are they not like little leaves? That is what they really are; but they are not green, as leaves usually are, because they have grown in the dark, and it is the sunlight that gives to leaves their beautiful green color.

Well, if you think of these pale, thin scales along this stalk, as underground leaves, what do you think we may rightly call the stalk which bears them?"

"Stems."

"Yes; this is one kind of underground stem, and here and there this stem is greatly enlarged,—swollen, you may say,—and so the potato, which is such a useful article of food, grows. Such enlarged parts of underground stems are called tubers. The little dents, commonly called eyes, here and there on the potato, are really buds, each covered by a scale-like leaf. Now let us see the real roots of the potato (touching the fibrous roots). If we examine these we shall find no leaves, either perfect or partly formed. Instead we find the tiny root hairs whose business it is to take up nourishment for the growing plant from the earth. There are many kinds of underground stems, some of them very different from that of the potato. You have all seen onions and hyacinth bulbs, I suppose? Bulbs of all kinds are really underground stems, but are very short, having the leaves or scales so crowded as to overlap one another. We have not time to talk of other varieties of underground stems to-day; but we will say a little more about the stems that grow in the light,—the above-ground-stems, you may, if you choose, call them. Notice this geranium. You see how the single stem grows upright for a little way? 'Then what happens?'" (pointing to the first branches).

"The stem divides."

"Yes; and these divisions of the stem are called what?"

"Branches."

"Right. Now I want you to notice every plant you see, and find out all you can about stems and branches. Some stems live a long time, growing stronger and firmer year after year, and adding branches to branches. Can you tell me what such plants are called?"

"Trees."

"Yes. Can any one tell me the name of some plant whose stem only lives a few months?"

"Bean!"

"Yes, the bean, pea, and many other common vegetables as well as most of the flowers which we raise from seeds in our gardens. It would take a long time to learn all that is known about stems and branches; but in other lessons we will talk about some of the most interesting kinds, and you must, as I said before, try to find out for yourselves as many different kinds as possible. Bring specimens to school, and we will examine them in class. Dig up small plants and see if you can tell the true roots from the underground stems; only you must not think that every plant has stems beneath the earth, for this is not true."

Additional lessons may teach something more of the *form*, *direction*, or mode of growth, and *duration* of stems, though with primary pupils of course no exhaustive study of the subject can be attempted. A few object-lessons might well be given on particularly striking forms, such as the leafless branches of the cactus and stunted or undeveloped branches in the shape of thorns,

spines, or tendrils. The main thing in this, as in all natural science-teaching, is so to interest the children that they will see and examine every plant with which they meet, and recognize in it the organs discussed in class.

SUGGESTIONS FOR TEACHERS' LESSON.

SPRING TERM.

1. *Lessons on Human Body.* Names, number, and shape of bones, (a) of the *head and trunk*, (b) of the upper limbs, (c) of the lower limbs. If the school is not provided with a skeleton, interest some physician in the work you are doing, and he will be pleased to loan you one. Preceding the lesson on particular bones, let the children ascertain simple general facts concerning them by *self-examination* during familiar conversation with the teacher. They will find that *there are bones in every part of the body*; that *they are not all in one piece*; that, *in some parts of the body, there are a great many small bones together*; that *the bones are of different sizes and shapes*.

Suggestions for a Lesson on Bones of Upper Limbs. Call upon a child to point to any bone of the upper limbs. Then question as to exact position of the bone, and the child, from the lessons of preceding year, will readily answer. For example, if he pointed to the *humerus*, his answer as to its position would be that it was in the upper arm. Then let him name the bone from its position, calling it the *bone of the upper arm*. In the same way let the other bones be named. Have the children notice number and shape of bones, and formulate sentences, giving name, number, and shape of each kind. Their knowledge of bones may be summarized in sentences suitable for class recitation. Drill, having pupils touch each part as named.

2. *Lessons on Birds.* Description of *birds of passage* common to the locality. These lessons should be conducted on the plan outlined for the work of the winter term.

VALUE OF EXPERIENCE.—How hard a thing it is to teach as well as we know. Who has not gone to the school-room in the morning, full of enthusiasm, and eager to try some beautiful theory, and left in the afternoon mortified with failure? Paul was right when he said, "For the good that I would, I do not; but the evil which I would not, that I do." To become a good teacher requires something more than theory and enthusiasm. It takes years of patient practice. No one can become a full-fledged teacher all at once. A teacher is a growth, often a slow growth. Let us, then, try to be content with growth, even if it be slow. The best plan is to strive to find the worst fault, and correct that. Make one improvement at a time.—*Ex.*

PRIMARY TEACHING.

BY MISS EMMA JONES.

READING.

Punctuation, I should say, is of two-fold importance. It is a great help to the clear understanding of the meaning and the pleasant reading of what is written. The ancients were not acquainted with the use of punctuation-marks. This art is said to be an invention of the Alexandrian grammarian, but was so forgotten and neglected that Charlemagne found it necessary to ask Warnefried and Alcuin to restore it. At first it consisted of a point called *stigma*, and, sometimes a line.

The system of punctuation now in use was introduced by the Venetian printer Manutius, in the latter part of the fifteenth century. Very little change has since been found necessary. Without the use and observance of these marks, much of the comfort and pleasure of reading would be lost. There are some very excellent teachers who never say one word about punctuation in class until the pupils are somewhat advanced in the Second Reader. They argue, it is too much and too difficult for the very little ones to be worried with. I certainly should not the first day, or even the first week of a child's school-life, harass it with commas and periods; but just as soon as commas and periods occur in the little sentences, I would teach that the observance of such marks made a great difference in the reading. Even the least of the little tots will be pleased to learn the name and use of such marks. Most children take pride in learning new words, especially if they *sound big*.

Without the observance of punctuation the meaning of the writer is obscure alike to the reader and listener. A person listening cannot see these points. He must depend upon his hearing to get the sense. In order to do this the reader should read in such a manner that the listener can punctuate as he hears. That is, the reader must make distinctions in his rests, modulations, and inflections, while reading, according to the punctuation. A reader who observes these rules will transfer the ideas on his paper to his hearers as fast as he reads them. On the other hand, one who ignores these punctuations cannot read intelligently until he has studied his article and guessed at the meaning. He cannot be certain that he has guessed at the correct meaning.

It follows, then, in order to make good readers, that the use and proper observance of marks for punctuation be taught to pupils; that this work be commenced in the primary grades, as soon as such marks occur in their work. Let a child learn to read, regardless of these marks, by passing over them, or by allowing the wrong inflection to be given, and you will have untold trouble in breaking up the bad habit. We all know, from experience, that it is easier to teach several things correctly than to *unteach* one that has been wrongly taught.

Attention should be called to the shades of meanings

made, according to punctuation. To do this, a sentence may be written upon the board. Change the punctuation, and require them to read, observing the pauses and noting the change. The following sentence will illustrate: "Will went to town in a buggy; John rode upon the horse's back; Guy sat with Arthur as they drove home, and they all were happy." The same words punctuated differently read, "Will went to town, in the buggy John rode, upon the horse's back Guy sat with Arthur, as they drove home, and all were happy."

Punctuation and articulation should be taught in conversation and the preparation of the lesson, and not be left entirely until the recitation. It is discouraging to a child, when attempting to get a thought, to be corrected for mispronunciation, or the giving of the wrong inflection. It will confuse and frustrate its ideas. Care would have to be great, lest the little ones conclude *pronunciation and punctuation, not thought*, be the main object of the lesson. To cultivate habits of observance, the class should sometimes be allowed to note carefully and correct every mistake. Generally a mispronunciation, correctly pronounced by the teacher, is better.

(To be continued.)

STUDIES IN ZOOLOGY.—(VI.)

BY HERMON C. BUMPUS.

We now come to a most interesting group of animals: forms which have had much to do with determining the outline of continents, and have been no small factors in the growth of islands. We have to deal with the coral *animals* (insects they are not); and how best, with little material, to direct a class of young people, so that they may easily comprehend their structure and habits, may at first appear not an easy task.

Surely every teacher has, or can borrow, a few pieces of branching coral. These should be passed around the class that each scholar may examine a specimen, and then, by questioning, the more prominent characteristics of the coral's structure can be drawn out.

As a whole, the specimens will be found to have the appearance of a branching twig from a tree, though there is no regular order displayed. Dotting the outside of the stem will be noticed a multitude of pores, about equal to a pencil's point in size. At the tips of the branches there will generally be found a pore considerably larger than those found elsewhere, and if the broken basal portion he examined there will be noticed a central circle with radiating partitions, apparently the axis; or, were it a vegetable growth, the pith.

Now, before the class, if one can afford to do so, it would be well to break one of the main stems in several pieces, and, examining the ends of the several sections, inform the pupils that in all cases you find the axis the same. If pieces, quarter of an inch in length, be held up toward the light by some of the class, one of the

brighter ones will notice that he can see through this axial opening, as he might through a tube. As this is always the case, the class is justified in supposing that the opening runs through the entire length of the branch.

Now let one or two of the young investigators examine this central opening with a hand lens, and they will inform the class that it has a series of partitions passing inward from the circumference, and much resembling the arrangement of the radiating tubes of the sponge. We are hence dealing with a radiate animal. If others are now directed to count these partitions, on calling for results, the teacher will make note of the fact that the numbers, if properly given, are multiples of six.

We can now turn to the smaller pores which open on the sides. Some scholars, which have not as yet taken part in the work, might now be allowed to examine these lateral pores and count the partitions. The number of these partitions will be found to agree with those of the axial pore.

Return now once more to the base of the main stem, and there, in most cases, it will be easily seen that the pores of the surface really communicate with the axial pore.

It will now be brought to mind that the hydra had a general structure very similar. By proper questioning it can be drawn out from the class, that the hydra was elongated, and sometimes bore similar, though smaller, individuals on its side. Here in the coral we have an elongated axial canal, bearing similar, though smaller, canals. But some bright scholar objects that, while the hydra was soft and capable of more or less motion, we here have a stiff, hard body, apparently organized, but destitute of life. This objection leads to the explanation that the piece of coral is no more than the skeleton of hydra-like animals, the soft parts of life having been washed away.

In the salt water, which contains much lime, many animals which at first sight resemble the hydra, having arms or tentacles which they can move about in search of prey and with which they push their food into their centrally placed mouths, are found to take the lime from the water and strengthen their bodies with it, so that, when they die, each leaves a little cup of lime. Since many of these marine hydra-like animals grow in clusters, as some of the hydras were found to do, these cups are joined by their limy substance to the central or parent form, as well as to each other.

The class thus understand how the branch of coral was made, and they can picture to themselves how it must have appeared as it grew from the side of some overhanging rock in a warm pool of some tropical bay. At its apex was a large, bright-colored individual, its arms expanded and waving in the gentle current standing alone, the patriarch of a host of smaller individuals,

equally beautiful in their coloring, but of lower position. All had a more or less complete system of communication with each other, but always through the parent form, as was noted when the base of the stem was examined. It was no wonder that such forms were for centuries regarded as plants, for they rival in beauty the choicest selections of the conservatory.

It would, perhaps, be well to now tell the class about the coral islands. Years ago some bit of coral may have begun to grow on the bottom of the ocean. Little by little it branched out until finally its uppermost twigs came so near the surface that passing vessels broke them off as they sailed along. The branches came still nearer the surface, and finally the floating seaweeds and logs settled upon them. At low tides the birds collected upon them, and finally shrubs and trees found soil on which to grow.

HOW TO MAKE RECITATIONS SPIRITED AND VALUABLE.

Know thoroughly and familiarly the lesson you wish to teach; or, in other words, teach from a full mind and a clear understanding.

Gain and keep the attention and interest of the pupils upon the lesson. Refuse to teach without attention.

Use words understood by both teacher and pupil in the same sense,—language clear and vivid alike to both.

Begin with what is already well known to the pupil in the lesson or upon the subject, and proceed to the unknown by single, easy, and natural steps, letting the known explain the unknown.

Use the pupil's own mind, exciting his self-activities, and leading him to think out the truth for himself. Keep his thoughts as much as possible ahead of your expression, making him a discoverer of truth.

Require the pupil to reproduce in thought the lesson he is learning,—thinking it out in its parts, proofs, connections, and applications till he can express it in his own language.

Review, *review*, REVIEW; reproducing correctly the old, deepening its impression with new thoughts, correcting false views, and completing the true.—*Ex.*

GRAMMAR TEACHING.—I would waive the formality of teaching grammar as a science and teach it as a means of developing *thought* and the *expression* of thought. I look upon the practice of teaching children the technicalities of English grammar as the greatest impediment of the youthful tongue. I would reduce the number of recitations by bidding the old spelling-book a long farewell, and I would teach the *form* and *use* of words in every branch. The form of the word, apart from its meaning, is but a ghastly corpse, and the spelling-books are cemeteries wherein are buried face to face, in columns, side by side, the soulless bodies of meaningless words.—*Harden E. Jones.*

THE SOURCE OF FAILURE.

BY KATE L. BROWN.

To the ambitious, conscientious worker the possibility of failure has in it elements that closely approach the tragic. And yet there comes a moment when even the most dogged persistence must confess itself beaten. Our best results fall far short of that for which we have hoped and prayed. There is a barrenness, a lack of flavor, which may hint dolefully of the decay of our best powers. We are dissatisfied, vaguely unhappy, and wonder if we were not mistaken in our first choice.

Sad though such a moment may be, it is the token of hope and life, rather than of decay and death. As the angel troubled the waters, so the spirit moves upon the heart and life, lest the stagnation of indifference and self-complacency deprive the fountain of its beneficent uses. It is a healthful sign when the individual is ready in an honest, manful way to see and confess failure.

There are countless circumstances which limit success, and for which the teacher is not responsible. Still it is truest, safest, for her to realize that the source of the majority of her failures can never lie otherwise than in her own self. It is well that this is so. We cannot always master outside influences, but every human being may be master of himself. So, let us know how to take home to our own hearts and consciences some of the causes of non-success. Not blindly, not morbidly, but with deep thankfulness, that so much of the remedy lies in our own hands.

Emerson once wrote to a young daughter that he was not so much concerned in regard to what she studied, as to who her teachers were.

This is a fine tribute to the power of personal influence. Let the teacher remember that no small part of her work is character-building. She may not begin to satisfy herself in the outward results she is obtaining. But every human being has it in his power to make some one else better and happier. And to assist in sending forth to life even *one* more good man or woman,—is not that a most worthy work?

In the beginning the teacher must study the situation and all its attendant circumstances, and ask herself, "What can I expect from these children? What ought I to receive?" We all begin by asking and expecting too much.

We are too apt to ignore certain circumstances surrounding the lives of our pupils, which would seem as if pitted against their success. We are too apt to overlook the peculiar make-up of our own school. An ungraded school cannot produce in all respects as fine results as the graded school.

Country children are, as a rule, slower in comprehension, with wits less keenly sharpened, than their town and city cousins. In judging what we may expect,

we should examine the heredity of our pupils. Do they inherit from a long line of ancestors intelligence, cultivated tastes, good morals, keenly developed spiritual natures,—or the reverse? What is the home life,—is it orderly, refined, loving? Are all its influences such as would develop in the children a love of good things? These are questions that every teacher must solve if she wishes her judgment to hit upon the truth. After she has decided what she may expect, then if failure comes let her look at home for its secret.

It is the close of a rainy day. The children have fidgeted and fussed all the time. The teacher is fretted, tired; every nerve quivers; she would like to have a "good cry."

What is the matter? Did she not expect more control of the children than she could give herself? Was she sunny, patient, and abounding in tact? Did she "*see everything*," or overlook somethings? Did she realize that children, like cats, are always restless before a storm, or did she treat all childish pranks as desperate pieces of misconduct? Deliberate wrong-doing must be promptly punished; persistent carelessness must be restrained. But the ordinary pranks and restless fidgets of childhood can only be rightly dealt with by using the most consummate patience. The steady control of self, the ever kind voice, the glance of sympathy, the "*is not easily provoked*" spirit,—all these do more to win and hold and mould a child's spirit than all the arbitrary rules of force that could be promulgated.

The results of a term's work fall below what we expected. Again let us ask, "Did I not expect too much? Did I place about the children the atmosphere favorable to the awakening and growth of intelligence? Did I fully prepare myself to teach these subjects? Was my teaching logical, clear? Did I lead them to see what the truth was? Was it practically illustrated? Did I drill enough to fix the thought?"

It is a good thing to fail sometimes. It has the effect of the electrical shock, starting the life currents into new activities. But let us take care that these falls be "*falls upward*," and that new grace and wisdom be the fruits thereof.

GOVERNMENT.

The requisition for good government and its results, good order, are: (1) On the part of the teacher, (a) self-government, (b) careful preparation for the work in hand; (2) Comfort, as a condition of the pupils; (3) Occupation for all at all times; (4) Pure air, *pure air!* PURE AIR! (5) Cleanliness; (6) Few rules, besides the comprehensive "*mind your business*." Whatever may be done to make the school-room attractive will help in the matter.

CHATS ON WAYS and MEANS of TEACHING.

BY ANNA B. BADLAM.

One cannot associate with young children without being led to see how strong the influence of some simple reward may become in inciting the children to new efforts of strength, mental or physical. By reward, I mean by no means the bestowal of a gift; for, by so doing, we would defeat the very object of our training, which should be to arouse in the child a natural and honest sense of pride in the success of his own efforts. The simpler the reward the better, and it should be of such a nature that all deserving pupils may share it.

About a month ago, I noticed, that as the children became more and more *familiar* with the words in the Reader, the less careful they were in *enunciating* them. Some exercise seemed necessary to correct this failing which was fast becoming a habit. The exercise of the pupils, as a class, sounded well in concert, but the individual efforts were of various degrees of quality.

I have been in the habit, daily, of allowing any child who does unusually well in any lesson to pass to the back of the room. Such a child is called a *little helper*. The children take pride in seeing how many *helpers* we can get in a lesson. When the lesson is over, the successful ones are counted, and an impromptu number-lesson follows. If we secure *nineteen helpers*, the children tell how many *more* we need to make *twenty*. How many must be taken *away* to leave *ten*. They decide how we can arrange these children in rows of *nine*, or *two*, or *six*, or *three*, and how many children will be left to be placed in a new row.

Relying on the children's interest in our Little Helper Band, I have made use of this little plan to secure good, clear enunciation, either when the word is taken as a *whole* or separated with its *sounds*. The result has been most gratifying. On the first trial, out of *eighteen* or *twenty* children I found only *three* who did not have to be corrected in one way or another. Sometimes the sound would be given incorrectly; sometimes the mouth would be only partially opened; again, the jaw would be rigid, thus corrupting the sound; often the word would not be properly divided into its syllables.

When a child stood, held his book before him so that it was possible for me to watch the movements of his mouth, pronounced the word and sounded it correctly, without any help from me, I allowed him to go to the back of the room. That day there were three. The next day I started with a line of children in another part of the room, children of no better ability, but who had had a chance to profit by the lesson of the previous day. This time about half of the children who recited were able to take their places at the back of the room. I take ten minutes daily for the work, and the result is more than I expected when I began, for a failure is seldom made now.

That so simple a reward might become valueless, after a while, might seem natural to suppose; but the children have now been accustomed to it for more than a year, in connection with one exercise or another, and they have never tired of it. Indeed, often toward the close of some of the unseasonably warm days we had in early winter, I had but to say, if the class seemed listless, "I wonder how many *little helpers* I shall find," to have nearly every one take a new interest.

This last week, in the number-lessons I have allowed the helpers to have little slips of paper with such questions written on them (one side, addition and subtraction; the other side, multiplication and division), thus:

Balls.	Reverse side—Balls.
$9 + 7 =$	$9 \times 7 =$
$7 + 9 =$	$7 \times 9 =$
$16 - 9 =$	$63 \div 9 =$
$16 - 7 =$	$63 \div 7 =$

In one of these lessons one half of the class is busy writing; meantime the rest of the children are busy supplying answers to such work as the following, each child taking some question he is sure he can answer.

(All are anxious to secure one of the valued paper slips.)

[7 days make a week.] [4 quarts make a gallon.]

Days.	Days.	Qts.	Qts.
$7 \times 1 =$	$7 \times 2 =$	$4 \times 1 =$	$4 \times 2 =$
$7 \times 3 =$	$7 \times 4 =$	$4 \times 3 =$	$4 \times 4 =$
$7 \times 5 =$	$7 \times 6 =$	$4 \times 5 =$	$4 \times 6 =$
$7 \times 7 =$	$7 \times 8 =$	$4 \times 7 =$	$4 \times 8 =$
$7 \times 9 =$	$7 \times 10 =$	$4 \times 9 =$	$4 \times 10 =$
$7 \times 11 =$	$7 - 12 =$	$4 \times 11 =$	$4 \times 12 =$

[12 inches make a foot.] [3 feet make a yard.]

Inches.	Inches.	Feet.	Feet.
$12 \times 1 = \text{etc.}$	$12 \times 2 = \text{etc.}$	$3 \times 1 = \text{etc.}$	$3 \times 2 = \text{etc.}$

[8 qts. make a peck.] [10 cts. make a dime.]
 [2 pts. make a quart.] [We go to school 5 days
 [6 working days in a week.] each week.]

Such children as fail to take part are given a question, as

Days.	Qts.	
7×3	or $4 \times 5 =$, and sent to the number chart, where the groups of 7 or 4 are arranged.

The successful children who have been examining their slips (on the addition and subtraction side, for instance) now recite in turn,—

Balls.		\$
7 and 9 are 16	or	8 and 2 are 10
9 and 7 are 16		2 and 8 are 10
16 less 7 leaves 9		10 less 2 leaves 8
16 less 9 leaves 7		10 less 8 leaves 2, etc.

As fast as a child recites he is allowed to put the work upon his slate. I had noticed a little tendency on the part of the children to prefer the *oral* work in number to the *written*, rather to the detriment of the

latter; but now that the work is given as a reward for good oral work, it is fast becoming a favorite exercise. Often what may have seemed a little irksome to a child when previously given as a task, may become a pleasure to him if granted as a favor for work well done in some other branch or direction.

LITERARY CULTURE.

BY CHARLES SWISHER.

A taste for reading is the foundation of a good education. The person who is a habitual reader is acquiring information every day. He knows what is taking place in the world. His ideas are sharpened by being rubbed against other men's ideas. To cultivate such a taste in children should be the object of every earnest teacher.

What child is not delighted with fairy tales? Who ever saw a child's eyes close and its head nod while its mother was telling it a story, such as mothers only can tell. Children are inquisitive. They are always asking questions. They want to know *everything*. Here is the germ; to develop it is the province of the true instructor.

We can select almost any well-known author and find something that he has written that will interest children. Longfellow, who sings:

"Come to me, O ye children,
And whisper in my ear
What the birds and winds are saying
In your sunny atmosphere;"

has written some beautiful poems for children. Read the "Children's Hour" to some little people; tell them of Longfellow's hour for his children, and at once you can awaken an interest that will never become languid if rightly used.

The "Song of Hiawatha," with its beautiful legends and traditions, equals the most wonderful fairy tale that ever was written. With what keen appreciation will a child listen when the sturgeon

"Opened his great jaws and swallowed
Both canoe and Hiawatha;"

or when the warrior threw his grandmother against the moon,—

"Right against the moon he threw her,
'Tis her body that you see there."

Yes, it is not a man the Indian children see in the moon, but

"A miserable old woman."

The desire for reading once awakened, we only need to direct it. We must be readers ourselves. Without it we will fail, and we deserve to fail. We must have more literature in our common schools. That day is coming. Let us meet the demand, and both we and our pupils will be the better for it.

SKELETON LESSONS IN PHYSIOLOGY AND HYGIENE.—(VI.)

BY ALICE M. GUERNSEY.

CIRCULATION.

Illustrate clearly and forcibly the chief facts in the structure and working of the circulatory system. Begin with the pricked and cut fingers so familiar to the child. Whence comes the blood? Provide a thin, flexible rubber tube, a toy teapot, colored water, and a tumbler. Slip one end of the tubing over the spout of the teapot, letting it rest horizontally along a pile of books, the other end dipping into the tumbler. By raising the teapot send the current of colored water through the tubing.



So the blood moves in little tubes through the body. Some of them are larger than this; some so small that your eyes could not see them. There must be something to start the motion of the blood?

What starts the motion of the water here?

Show, if possible, a calf's or pig's heart, with the ends of the blood-vessels. Then cut it open a little to one side of the exterior line of fat, and show the chambers of one side, running a pencil into their main openings; repeat with the other side. Never mind the names, for the wee folk. Call them upper and lower rooms on the respective sides. Squeeze a sponge full of water. If either room is full of blood, and is then squeezed, what must the blood do?

Show the dividing wall between the two sides of the heart. For very young children I would not complicate the lessons (to teach this subject will require several lessons) with the distinction between arterial and venous blood. "Play" that the teapot was the heart, and move the end of the tube hitherto placed (for better vision) in the tumbler, so that it will enter the top of the teapot. Be particular about the location of the heart, that the gestures of some future orator among your pupils may not disgrace your teaching. What teacher has not *tried* to keep a sober face while seeing the heart gravely located in the stomach?

Let each child try to feel the beating of his own heart; if clothing is too thick (fortunately no corsets will interfere), bid them feel it when undressed at night.

Place the fingers (not the thumb with its strong artery) on the wrist, for counting the pulse. Teach the lessons given in the slate-work.

With older pupils, the action of the lungs and the differences in color, structure, etc., of venous and arterial blood, may be explained. Even here, the terms oxygen and carbonic dioxide need not be used. Illustrate by expressmen bringing a box and taking away a trunk, farmers sowing and reaping, etc.

"I had a dear little canary that sang to me all winter long. One day in the early spring it seemed sick, and the next morning somebody said, 'Your canary is dead.' I went to see, and he was cold and stiff in his cage."

Call for similar instances among the pets of the children; very tenderly,—not as if it were terrible, so as to rouse fear in the mind of the child,—refer to the dead human body, and bring out the fact that animals, both brute and human, die when the heart stops beating.

Now, for a minute by my watch, I want you to think just this one thing: "My heart must beat; my heart must beat." Think it over and over again. What would become of your study, your ball games, your reading, if you had to think about the heart all the time in order to keep alive?

Refer to muscles and muscular motion, and develop the fact that there are nerves which control the heart, that keep it beating just right, neither too fast nor too slow; that nerves, also, control the flow of blood in the blood-vessels.

What do beer, wine, cider, whiskey, and all such drinks, do to the nerves? Why? (Because there is alcohol in them.) Why does a drunken man stagger when he walks? (Because his nerves are put to sleep by the liquor he drank, and so they cannot tell his feet and hands how to move.) Why do his hands tremble? (Because their nerves are hurt by the alcohol in the liquors, so that they do not work right.)

If you should count the pulse of one who has been drinking even a very little liquor, you would find that the blood was rushing through the tiny tubes much faster than it ought. The nerves which manage these tubes and the heart are hurt almost as soon as one swallows liquor. They go to sleep, so that they cannot do their work. Illustrate the difference in heart-beat by tapping on desk or book in time with the pulse, and then more quickly but less forcibly. If you should walk from here to — (name a place some half-a-mile distant, or nearer, for the smaller ones), would you be tired? If you ran all the way, how would it be? How will the heart feel if it is made to work so much faster than it ought?

Sometimes people drink so much liquor that their poor hearts get too tired to work any longer, and they stop. What happens then? Almost always the tiny tubes get so full of blood, when one has been drinking, that the color shows through the skin. How many

have ever seen a drinking man? How did his face look? (Make emphatic the "danger signal" of the moderate drinker as well as of the drunkard.)

What is the heart made of? (Refer to specimen.) What harm do liquors do the muscles? Sometimes the heart gets so full of useless fat, in this way, that it has to stop working.

(The effect of tobacco on the heart is much like that of alcohol. Smokers often suffer from severe pain around the heart, and a heart disease called the "tobacco heart" is not uncommon. Do not fail to make special points, wherever practicable, against this subtle enemy.)

SLATE-WORK.

Copy these lessons on your slates:

1. My heart is on the left side of my body.
2. (For the youngest pupils.) The blood is pumped out from my heart.
3. The blood moves in little tubes through my body.
4. The blood comes back to my heart, and is pumped out again.
5. (For older pupils.) Left side of heart; pure, fresh blood comes from the lungs and is sent all through the body.
6. Right side of the heart; impure, blue blood comes from the body, and is sent to the lungs to be made over.

MISS WEST'S CLASS IN GEOGRAPHY.

BY FRANCES C. SPARHAWK.

XVII.

"I have taken Africa for our lesson to day," said Miss West, "because it is more simple than the other divisions. I have drawn the map of it clearly, and I hope that you will have something to tell me about it."

"It puts me in mind of South America, in shape," suggested Fred White.

"There isn't so much water in it," said Lily.

"I should think not. Look at that great desert," cried Johnny Smart. And in answer to Miss West's question of what a desert was, he said that it was like the sand-bank over beyond the pond, only a thousand times bigger and hotter.

"This desert is a thousand thousand times bigger," said Miss West, "and although it is not a thousand times hotter than that bank is on a summer's day, yet if you were crossing this desert you would think so. In the first place it is really very much hotter, as well as being so much larger, and then there is another reason. Do any of you think of it?"

"If you are hot on the sand-bank you can go under the trees and cool off," suggested Carrie Blunt; "but there are no trees over there, you said."

"Only in the little spots where the wells are," said Frank Blake; at which Miss West said that, though

Frank was the smallest boy in the class, he didn't have the shortest memory.

Then the children had a little talk with her about desert travel and the late war in the Soudan.

"Is that the Nile?" asked Mary Summers, with the pointer on the chalk-line representing that famous river.

Miss West asked her to write the name beside it, and then she told the children of the efforts that had been made to discover the sources of this river, and of the final success.

"Let me see," said Johnny Smart, "there ought to be some big cities on this river, especially as there don't seem to be many other rivers about; I mean many compared to the other countries.

"In some parts of Africa," said Miss West, "we have the two things necessary to vegetation,—heat and moisture; and in other parts what two things should you expect to find, looking at the deserts and remembering that so much of Africa is in the tropics?"

"Heat and dryness," said Ned Hansom.

"Yes. Does the dryness make the heat more, or less?"

"I'm always hotter when I'm dry," responded Frank Blake.

The children laughed. But Miss West told them that, after all, the ground was like us, and that, though Frank's was a funny way of putting the thing, it wasn't bad.

"Because it's the truth," persisted the boy.

"Yes, because it's the truth, Frank. The ground that is very dry gets what we call *baked* by the heat, and heats the air that passes over it. This is one reason why Africa is the hottest country in the world."

"What is the other?" asked Johnny Smart.

Miss West outlined North and South America, and asked on which continent, here or in Africa, was the greater quantity of land within the tropics. The class answered correctly, and their own limited experience had taught them that it was cooler on the water than on the land, especially in the sunshine. And, from the comparison of a certain sandy, shadeless walk in Leslie with another smooth and well shaded walk, both of which all the children knew, they came to understand in a general way why it must be very hot in Africa, which was as much comprehension of the matter as Miss West aimed at for the present. "We have seen," she said, "that people in hot countries are darker than people in cooler ones. What color are the Africans?"

"Black," said Ned Hansom.

"I suppose they're the darkest color because it's the hottest country," said Lily White.

"I suppose that has something to do with it," answered Miss West. "At any rate, it is a good way to remember two useful facts. But you must not think that all Africa is a desert or is inhabited by black people. The north and northeastern parts are peopled by a race that came

over from Asia; and down in the southern part, where diamonds are found, there are colonies of Dutch and of English, just as we know that they came long ago to America."

"What is there in between?" asked Mary Summers.

"There are mountains, and lakes, and a great many tribes of black people; there are also elephants, lions, and a great many other fierce beasts. There are enormous birds, also, and among them ostriches; but the truth is, that besides knowing that all these are to be found, we do not know what is in the center of Africa, as we do of other countries. The heat, the unhealthiness, the jungles, and the fierceness of the people there have kept out travelers. It is only very lately that we have learned anything about the country."

"Teacher, what are 'jungles'?" inquired Fred White.

"Did you ever get into a wood with thick underbrush?" she said.

All the boys knew what that was. Then Miss West explained that the underbrush that they knew about was, to an African jungle, something what the sand-bank across the pond was to an African desert, and that the jungle was not only to be dreaded in itself, but was the home of terrible lions and of other wild beasts. Then she told them a very few of the things that Stanley had learned of this dark continent. She showed them the native place of the coffee-plant, and told them of the palm-trees of Africa. Then after the children, from what they had learned, had shown in what region the chief cities and towns must lie, she took them to Egypt and told something of the wonders of that land, not attempting to give its history, but citing a few facts only, and those in sufficient detail to interest the children. And after this she had ready for them some pictures of street scenes in Cairo.

PUNCTUALITY.

BY E. S. INGRAHAM.

It is the duty of the teacher to offer every incentive to lead the pupil to be on time. If the child has any time to play before the opening hour, let inducements be held out to him to come to the school-building and play on the grounds. The opening exercises of the school should be such as to make the child anxious to take part in them. The general tone of the school in regard to tardiness has a great influence. If, whenever a pupil is tardy, he is made to feel the indignation of his classmates, he will not be likely to repeat the offence. Punctuality is moral. He who has the virtue of being on time thoroughly instilled into his mind while a school-boy, will meet his engagements at the appointed hour, his obligations when due; will be ever ready to do that which is true and noble when he has grown to manhood.

"LEARNING BY DOING."

BY BESSIE E. HAILMANN.

Children are much more interested in the *application* of principle than in the *principle itself*. They unconsciously incline to the *use* of great points of difference rather than the mere recognition of their existence. This is natural; and we should recognize this tendency in teaching children. Thus we should slip over the six-sidedness of cubic form, the flatness of the surface, the length of the line; rather let the child experience the necessity of using six tablets if he wants to make a house of four walls, ceiling, and floor; or of cutting six squares if he is going to make a cube of cardboard. The educational value of this will become evident when we realize that in *applying* the principle he is unconsciously observing the points of similarity between two opposites, the new principle and what had gone before; in other words, that he is comparing, and comparison is one of the keenest uses of the mind.

Give the child a concise, clear disquisition on the line, and it will go in one ear and out the other; but give him an embroidery card with a threaded needle, and his mind travels over familiar grounds; he connects the new discovery,—length,—with flexibility; flexibility with surface, surface with solid, and so goes over all his childish experience. Or, give him the slate and pencil, and through the broken line he anticipates the next discovery,—the point. The secret of interesting teaching is the power to *apply* a newly reached principle. And this application is just either a *linking back* with an opposite or an anticipation of an opposite of the newly acquired principle. Thus, while the opposites themselves are the backbone of our experiences, the reconciliation, the mediation, is their muscle and sinew.

In mediation lies the great soul of life. Science, art, philosophy, history, are all within its domain. At the same time, without the substantial framework of the "opposite similars," our teaching would become paltry and desultory, spread over much ground and to little purpose.

TRIAL LESSONS IN SPELLING.

BY JOHN M'CARTHY, NORWICH, CONN.

After the day's spelling-lesson has been finished, and before the scholars know which one will be taken next, let the teacher select one and have it written upon the slates from dictation, and without previous study. An average scholar will spell five-sixths of the words correctly. Let each scholar then make a list of the words he has mis-spelled; these, only, need be studied for the next day's lesson. Thus, the scholar's energy is saved and directed to the points where it is needed. In spelling without preparation, the scholar is compelled to recollect, compare, and construct. Besides this mental

discipline, he gets (in constructing) words of his own making, in a sense; what he gets in this way he is likely to be master of. Another good exercise for memory, reason, imagination, and expression, on the part of the scholar, is to have some one in the class define the word before it is written; in passing the word from one to another, interest and rivalry are aroused; very good results are sure to follow careful selection and faithful work on the part of the teacher.

In selecting spelling-lessons it should be borne in mind that they are not the means of enlarging the scholar's vocabulary; reading and conversation, heard or shared, do that; the function of the spelling-lesson is to fix, to correct, to classify words he already apprehends. After four months' work on this plan, the best scholars in charge of the writer would spell correctly, *in the trial lesson*, all but one word in three or four weeks; the poor ones, who at first would fail upon forty to ninety per cent., would spell correctly all but four to nine per cent.

A DEVOTIONAL EXERCISE.

Having seen the beautiful Devotional Exercises given in one of your recent numbers, it occurred to me that an exercise that always interests the little ones of my school might be acceptable. As you see, the exercise is very simple, and can be shortened or lengthened at any time, without confusion to the children.

Teacher.—What does the Great Teacher say to little children?

School.—Little children, love one another.

T.—What else did He say?

Sc.—Do unto others as you would have others do unto you.

T.—What is the value of a good name?

Sc.—A good name is rather to be chosen than great riches, and loving favor than silver or gold.

T.—Can a little child have a good or bad name?

Sc.—Even a child is known by his doings, whether his work be pure or whether it be right.

F. E. S.

— A truthful soul, a loving mind;
Full of affection for its kind;
A spirit firm, erect, and free,
That never basely bends the knee;
That truly speaks from God within,
That never makes a league with sin;
That snaps the fetters despots make,
And loves the truth for its own sake;
That worships God, and him alone,
And bows no more than at his throne;
And trembles at no tyrant's nod;
A soul that fears no one but God,
And thus can smile at curse or ban,—
That is the soul that makes the man.

METHODS.

A NUMBER LESSON.

Point.—To develop idea of and give term *one-half*.

Method.—The teacher comes before the class with an apple, an orange, etc. She calls the attention of the class, and has them name the objects before them. Then, taking the apple and dividing it into two equal parts, says (pointing to the parts), "What are these?" If the children do not give term parts, the teacher must illustrate for it. After getting the term she says, "How many parts are there?" "Two parts." "Which of the two parts should you rather have?" "I should not care." "Why would you not care?" "Because they are just alike." "What are just alike?" "The two parts of the apple." "What one word can you use that means the same as just alike?" "Equal." "What are equal?" "The two parts of the apple are equal." "What do we call one of the two equal parts of the apple?" Children or teacher give term *one-half*. "What do you mean by one-half of the apple?" "One of the two equal parts of the apple is called one-half of the apple."

The teacher then, pointing to the other objects which she divides into halves, has the children give a similar statement regarding each half. Teacher, again pointing to objects, says, "What do we call all these?" "Objects." "What are objects?" "Things." "When you say *thing*, meaning one of these or one of any objects you have seen, which thing do you mean?" "Either thing or anything." "Then what might we say one of the two equal parts of anything is called?" "One-half." "Tell me all about it." "One of the two equal parts of anything is called one-half." Several children give statement. Class spell words, and teacher write statement on the board. Children read. Several children find one-half of objects on the table, and tell what found. Teacher erase statement, and have children reproduce it on their slates.—MARY I. PETTINGILL, *Lewiston, Me.*

THE PRIMARY SCHOOLS OF LAPORTE, IND.

In answer to a great number of inquiries that have gradually accumulated on my table, I propose to give in a few articles an outline of the work in the primary schools of LaPorte, Ind. The only additional excuse I have to offer for this step is the fact that these schools represent a deliberate and systematic effort, under not unfavorable circumstances, to place the primary public school on the basis of the educational principles enounced more or less clearly by Comenius, Pestalozzi, and Froebel.

Without any attempt at completeness, or even strictly logical order, it may be well to formulate the leading ones of these principles in their bearing on the work in hand. This will facilitate mutual understanding.

1. At every stage of development the child should be enabled to be, and become, completely all that stage implies.

2. All material of instruction should be selected with reference to the child's powers and needs.

3. In the presentation of this material, the order of the child's development is the primary consideration; the order of the subject of instruction is secondary.

4. In all subjects of instruction, whatever is required for the child's development, and whatever lies within the scope of his powers, should be given.

5. Every subject should be so represented that the child may, in its work, have a purpose of its own to which the teacher's purpose is to be adapted.

6. Every newly-gained principle should be at once and all-sidedly applied in the child's entire range of experience and power.

7. All possible subjects of instruction should be foreshadowed in the earliest beginnings, and should, at each stage, be cultivated as far as the child's powers permit, and as far as they are needed for his orientation in his life and surroundings.

It will be my object in the following series of articles to show in what manner the schools of LaPorte seek to satisfy these principles, in the hope that this may induce others to aid me by turning on the light of their experience and criticism. For this purpose I shall present the matter in the following order:

- | | |
|-------------------------------|-----------------------------|
| 1. The outlines of the work. | 6. A month in numbers. |
| 2. A day in 1st primary room. | 7. Language work. |
| 3. A day in 2d " " | 8. One of the children. |
| 4. The uses of clay. | 9. One of the school-rooms. |
| 5. A month in drawing. | |

OUTLINES OF THE WORK.

FIRST CIRCLE, comprising ordinarily the first two years of school-life.

FIRST GROUP OF SUBJECTS: (1) *Form*: Recognition and construction of the cube, cylinder, sphere, prism, pyramid, and cone; of the square, oblong, rectangle, lozenge, rhomboid, triangle, hexagon, octagon; of the circle, semi circle, quadrant, diagonal, diameter, radius, center; of straight, curved, wavy, and spiral lines; of parallel, diverging, oblique, and perpendicular, horizontal, vertical, and slanting directions; right, obtuse, and acute angles. Materials used: clay, sand, blocks, tablets, splints, lentils, papers for folding and cutting, paper strips, etc

2. *Drawing*: Automatic exercises for both hands in simple symmetrical arrangements, in networks of squares, equilateral triangles, etc. Language or concept drawing in simple representations of things involving only essentials. Artistic drawing in symmetrical arrangements involving squares, triangles, and circles, with their sub-divisions; birds, leaves, flowers, butterflies, and other subjects, according to capacity. Materials used: the slate, properly prepared paper, the folding-sheet, the sand-table and clay-tablet. Practice in the use of the ruler and compasses.

3. *Coloring*: Classifying beads, dots, colored worsteds by their colors; coloring squares, triangles, circles, etc., in symmetrical and synchronomatic arrangements.

(To be continued.)

W. N. HAILMANN, *LaPorte, Ind.*

SUPPLEMENTARY READING.

LITTLE MARY'S BOUQUET.

[A reading for three pupils.]

I.

"To-morrow is little Mary's birth-day," said the gardener, as he examined his flowers. "She must have a nice bouquet."

"To morrow is little Mary's birth-day," whispered the flowers to one another. "To-morrow! to-morrow!"

"My buds are already," said the rose.

"So are mine," said the sunflower,

The pansies smiled at the thought, but the sunflower held his head so high that he did not see them.

"I'd rather stand in this garden than be put in the queen's bouquet," said a tall hollyhock.

"I've no flowers to spare for any one," said the money-wort, anxiously counting her buds.

"Don't be a miser," said the ragged robbin. "They may have all of mine."

"I would like to go to little Mary," said the mignonette.

"My dear child, don't think of such a thing," said a gay tulip, spreading her petals. "You have no beauty."

"I know it," said the mignonette, mournfully.

"Never mind," said the rose; "you have perfume, and some think that better than beauty."

"Ah!" said the tulip.

"Why are you here, pray?" said a pert little lady's-slipper to a bright dandelion, as she gave her a sly kick.

"If it comes to that, why are *you* here?" said the dandelion.

"Because I was planted here," said the lady's-slipper. "*You* are *wild*, but I came in a paper bag, with my name on it, and was planted by the gardener."

II.

"Perhaps I *am* a little wild," said the dandelion; but I was planted here; and, besides, I can tell the time."

"I never heard of a dandelion's being planted," said the lady's slipper.

"I never heard of a dandelion telling time," said a four o'clock.

"At all events, I was blown here by some one who wanted to know what time it was."

"Did they find out?" interrupted the four-o'clock.

"And I thought, as I was here, I might as well grow," continued the dandelion. "I am good to eat, and I can be made into coffee."

"Don't say anything about time, whatever you do," said the four-o'clock; "I am the only one who knows about time."

"Thyme! thyme!" said the summer-savory. "There are plenty of sweet herbs better than thyme."

"What are you quarreling about, you foolish little things?" said the sunflower. "I can tell time; I go by the sun."

"What will you do to-morrow, when the clouds come over and hide the sun?" asked a poor-man's-weather-glass at his feet.

"I can guess at it," said the sunflower; "but you must be a very poor-man's-weather-glass to talk of clouds when the sky is so bright."

III.

"I feel it in my fibres," said the weather-glass.

"For pity's sake, can any one tell me if it is four yet?" said the four o'clock. "Here I have been gossiping, and forgetting all about it."

"I can see the clock," said a sweet-pea, on tip-toe. "It is half past four."

"Dear me!" said the four-o'clock; "I promised these buds they should be out to-day, and now they will have to wait till four to-morrow morning, and then there will be no one to see them but the early birds. It is too bad."

"Only blame to yourself, madam," said a thistle.

The four o'clock made no reply, for she knew she would suffer if she meddled with him.

The next morning, early, the gardener came to make a bouquet. He made it of lovely pink sweet-peas, purple pansies, rose-buds wet with dew, the modest mignonette, the spicy carnation, fragrant geranium leaves, and delicate heliotrope.

"Every bouquet should have a bit of yellow," said the gardener, as he added a dandelion. "There! that finishes it, and it is fit for a queen;" and he carried it away.

"Just to think! He took that saucy dandelion, and left me," said the lady's slipper.

"What is a bouquet without me?" said the tulip, tossing her head. "No matter! I shall live the longer."

"So shall I," said ragged robin; but no one took any notice of him, because he was a ragged robin.—*From the Little Corporal.*

— "Let us love so well,
Our work shall still be better for our love,
And still our love be sweeter for our work,
And both commended for the sake of each."

— Art should interest by the true.
Art should move by the beautiful.
Art should persuade by the good.
Art should

Interest by the true to illumine the intelligence,
Move by the beautiful to regenerate the life,
Persuade by the good to perfect the heart.

—*Delsarte.*

FRIDAY AFTERNOONS
AND
SOCIAL HOURS.

These Exercises may be used as Readings or Recitations. The Editor will be glad to receive contributions from teachers and others.

EASTER SONG.

One Voice.—Snowdrops! lift your timid heads,—
All the earth is waking;
Field and forest, brown and dead,
Into life are breaking.

Several Voices.—Snowdrops, rise and tell the story,
How he rose, the Lord of glory.

One Voice.—Lilies! lilies! Easter calls:
Rise to meet the dawning
Of the blessed light that falls
Through the Easter morning.

Several Voices.—Ring your bells and tell the story,
How he rose, the Lord of glory.

One Voice.—Waken, sleeping butterflies!
Burst your narrow prison;
Spread your golden wings and rise,
For the Lord is risen.

Several Voices.—Spread your wings and tell the story,
How he rose, the Lord of glory!
—*Mary A. Lathbury.*

FROM PHEBE CARY'S LAST POEM.

Nature's sepulchre is breaking
And the earth, her gloom forsaking,
Into life and light is waking.

Rise, my soul, then, from dejection:
See in Nature the reflection
Of the dear Lord's resurrection.
Let this promise leave thee never:

*"If the night of death I sever,
Ye shall also live forever!"*

THE BRIGHT SIDE.

"Cheerfulness," says one, "is to a man's work what oiling is to machinery; it puts a smoothness, a beauty into it, as the sun often hangs a golden fringe on the retiring cloud. Resolving to see the world on the sunny side, we have almost won the battle of life at the outset." Resolving to see our work on the bright side, have we not gained the victory over it? That person is to be indeed pitied who goes through this beautiful world murmuring, fretting, and complaining of his lot in life. Man is out of harmony with the universe unless

he is happy. There is a tireless glee in the motion and life of all on which we look. There is music everywhere,—music in the school-room, music in the hall; music by our fireside bright, and music for us all.

SONG,—“VACATION DAYS ARE NEAR.”

(For close of term or year.)

Ho, ho, vacation days are here,
We welcome them with right good cheer,
In wisdom halls we love to be,
But yet 'tis pleasant to be free,
Ho, ho, vacation days are here.

Ho, ho, the hill, the wood, the dale,
The lake on which we love to sail,
We greet them all with right good cheer,
In thought unchanged again we're here,
Ho, ho, the hill, the wood, the dale.

Ho, ho, ye songsters of the shade,
A merry troop, your haunts invade,
Beware! our songs of merry glee
Shall fright ye, from the greenwood tree,
Ho, ho, ye songsters of the shade.

Ho, ho, the hours will quickly fly,
And soon vacation time be by;
Ah! then we'll all in glad refrain
Sing welcome to our school again,
Ho, ho, the hours will quickly fly.

— *Franklin Square Song Collection.*

EASTER INVOCATION.

Bloom, sweet Rose of Sharon,
Upon the plains of night;
Arise, O Easter lilies!
Put on your garments white;
For life comes forth in glory
Out from the waking earth,
To tell again the glory
Of resurrection-birth.

FOR SEVERAL LITTLE ONES.

We come, blessed Saviour,
A little childish band,
Bringing Thee the lilies
We've gathered o'er the land.
We'll plant them in our hearts,
The garden of Thy care,
Token of the Easter
That Thou dost still prepare.

AT EASTER.

Open the gates of the temple ;
 Spread branches of palm and of bay ;
 Let not the spirits of Nature
 Alone deck the conqueror's way.
 While spring from her death-sleep arises
 And joyous his presence awaits,
 While morning's smile lights up the heavens,
 Open the beautiful gates !
 He is here ! The long watches are over,
 The stone from the grave rolled away ;
 "We shall sleep," was the sigh of the midnight ;
 "We shall rise !" is the song of to-day.
 O music ! no longer lamenting,
 On pinions of tremulous flame
 Go soaring to meet the Beloved,
 And swell the new song of his fame !
 The altar is snowy with blossoms,
 The font is a vase of perfume,
 On pillar and chancel are twining
 Fresh garlands of eloquent bloom.
Christ is risen ! with glad lips we utter,
 And far up the infinite height
 Archangels the pæan re-echo,
 And crown Him with lilies of light !

— Anon.

TRUTH.

Truth is like a flowing river,
 Flowing on, and flowing ever,—
 Ever spreading, ever rising,
 With its waves the heart baptizing,—
 Ever soothing, ever healing,
 Banishing each troubled feeling ;
 Entering in the willing soul,
 Making the broken-hearted whole.
 Stay thee not the flowing tide,
 Turn thou not its waves aside ;
 Let it flow and let it enter
 To thy bosom's utmost center ;
 Let it warm the heart of clay,
 Let it cleanse all dirt away,
 Till the soul, redeemed from sin,
 To God and heaven shall enter in.

STAND LIKE THE ANVIL.

"Stand like the anvil !" when the stroke
 Of stalwart men falls fierce and fast ;
 Storms but more deeply root the oak,
 Whose brawny arms embrace the blast.
 "Stand like the anvil !" when the sparks
 Fly far and wide, a fiery shower ;

Virtue and truth must still be marks
 Where malice proves its want of power.

"Stand like the anvil !" when the bar
 Lies red and glowing on its breast ;
 Duty shall be life's leading star,
 And conscious innocence its rest.

"Stand like the anvil !" noise and heat
 Are born of earth and die with time ;
 The soul, like God, its source and seat,
 Is solemn, still, serene, sublime.

—Bishop Doane.

PROVERBS FOR EVERY DAY.

(To be recited by any desired number of pupils.)

A penny saved is a penny gained.
 A contented mind is a perpetual feast.
 As the twig is bent the tree's inclined.
 A good name is better than riches.
 A place for everything, and everything in its place.
 A willful waste makes a woeful want.
 A listener never hears any good of himself.
 Be sure you're right, then go ahead.
 Don't cry before you're hurt.
 Duty first, and pleasure afterward.
 Dress does not make the man.
 Evil to him who evil thinks.
 Every tub must stand on its own bottom.
 Fine feathers don't make fine birds.
 God helps those who help themselves.
 Great oaks from little acorns grow.
 Handsome is that handsome does.
 Least said, soonest mended.
 Never put off till to-morrow what you can do to-day.
 Never say can't.
 Practice makes perfect.
 Patience removes mountains.
 Take care of the pennies, and the pounds will take care of themselves.
 Think twice before you speak.
 Time once lost can never be regained.
 Where there's a will there's a way.

EASTER MORN.

Let us not bring, upon this joyful morning,
 Dead myrrh and spices for our Lord's adorning,
 Nor any lifeless thing.
 Our gift shall be the fragrance and the splendor
 Of living flowers, in breathing beauty tender,
 The glory of our spring.

— A Vermont school-boy who was asked what was the longest day in the year, promptly answered, "Sunday."

QUESTION DRAWER.

Communications for this Department should be addressed to QUESTION DRAWER, 3 Somerset Street, Boston, Mass.

"SHOULD the teacher mingle in general society? In his baccalaureate sermon, the principal of the normal school where I was graduated held that the teacher's duty was to save souls, and he told us that we must withdraw from the pomps and vanities of the world, and set ourselves apart from others as devoted to a higher calling. Is that a correct view of the teacher's social life?"

A NORMAL TEACHER.

If the saving of souls be taken in the broad sense of help toward sound views, right conduct, and noble character, saving souls is certainly the duty of every one who can exert any influence, and of the teacher more than others on account of his special opportunities. But in the narrow sense intended by the worthy principal, as shown by his counsel to "withdraw" and keep "apart," I think the idea thoroughly pernicious. The teacher should not withdraw or keep apart from the busy life of men. He should be in it and of it, and in full sympathy with it, bearing ever in mind the sentiment of the Latin poet, "I am a man, and no human interest lacks interest to me." It is finely said by Emerson, "We want not so much teachers as men and women teaching," or words to that effect; and only such teachers, who are first of all men and women fully in the current of the world's life, can reach the highest possibilities in their work. To keep in this current, to preserve and deepen a sympathy with our fellow-men, we must be much and often with them, and this can only be when, leaving their several vocations and avocations, they come together for recreation in the numberless ways that custom and fashion dictate. This coming together is called "society," and belongs to the ornamental side of life. In their "good clothes" they come, and so they should; for if "the *chef d'œuvre* of civilization is a man dressed," then the fairest flower of social existence is the assemblage of men and women in their best dress. Society is the school of the graces and of good manners, the atmosphere in which conversation may flourish. It amuses itself in certain conventional ways, as dancing, dining, driving, going to receptions and clubs; it is often frivolous enough, and if it tries not to be frivolous, it is apt to be dismal; but such as it is, we have no better cultivator of humanity within us, to say nothing of it as a brightener of the faculties. The teacher should be at home, in the best society within reach, first among his peers in all enterprises for pleasure or improvement. To use Emerson again, the chief value of a dress-coat and conversance with the ball room is that they enable the young man to estimate these things justly and save him from feeling shut out from pleasures which the more fortunate enjoy. How pitiful that a teacher's heart should be gnawed with longing for such things! Could he thus give fibre to heart and mind?

The teacher should be natural always. If he is young, let him be gay with his equals in years; and as time goes on, let him seek refreshment of spirit and renewal of sympathy by friendly participation in the social gatherings of the people among whom he lives. All this is urged, with the limitation that duty must stand first, and no pleasure be indulged in at the expense of work. This understood, I would advise the teacher to be a "society man" or "society woman," but with constant heed to St. Paul's counsel about using all things as not abusing them.

J. W. HOLCOMBE, *Supt. Public Instruction, Indiana.*

"WILL you give to one anxious to acquire the methods and principles of the 'New Education' the names of normal or training-schools best adapted to that end? I am a teacher of some years' experience, but wish to fit myself for better work, and its accompaniment, better pay."

M. B.

Brookhaven, Miss.

President E. E. White says, "The term 'New Education' as applied to a phase of primary teaching is too large a name for the thing it covers." Considering its limitations thus justly defined, you will see that it is not the principles of a "New Education" that you wish to study, but those laws which are and have always been fundamental to the best teaching. You want to learn, moreover, the best methods of applying these laws so as to secure the highest degree of mental power in your pupils. For this double purpose you would do well to join one of the reading circles of which so many have been organized lately for the benefit of teachers. If there is not one in your State, join the Chautauqua circle, just organized under the presidency of Thomas W. Bicknell, LL.D., of Boston, and you will be wisely guided in the study of pedagogical literature. So much of theory should be supplemented by observation in some of the best public schools.

Should you desire to attend a normal school you would do well to communicate with Dr. Scheib, principal of the Louisiana State Normal School at Natchitoches, and with Dr. F. Louis Soldan, principal of the St. Louis Normal School. These are both men of broad culture in pedagogical science, and they would be able to give you valuable advice. The name of Col. Parker must be already familiar to you as the leading apostle of the so-called "New Education." Should you address him, at the Cook County (Ill.) Normal School, of which he is principal, you would probably find him willing to give you information and advice.

"Is it best for a teacher to use rewards of merit as a means of discipline in the primary school?"

D. F. S.

—, N. H.

In a larger primary school it is necessary to resort to some device for strengthening the memory. As a means, the judicious use of rewards of merit is to be commended; but if pupils come to regard them as an end, the result is worse than all the disorder they can overcome.

NOTES AND QUERIES.

Questions and answers for the Notes and Queries should reach us by the first of each month to insure publication in the following number.

We desire that our patrons should consider themselves at liberty to take part in the discussions of the Notes and Queries. You are invited to send in such questions as you desire to have answered; we also solicit answers to questions given.

ALL COMMUNICATIONS FOR THIS DEPARTMENT MUST BE SENT TO THE EDITOR, 3 SOMERSET STREET, BOSTON, MASS.

ANSWERS TO QUERIES.

65. Who was the last of the Plantagenets? When, where, and how did he die?

We think both answers in the last *TEACHER* are incorrect? The best historians state that Richard III. was killed at the battle of Bosworth Field in 1485, the last conflict between the Yorkists and Lancastrians. Richard had cut down the standard-bearer of the Lancastrians, and was slain in the act of aiming a deadly blow at Richmond, afterward Henry VII. The crown he had worn on the battlefield was found in a hawthorne bush and placed on the victor's head by Lord Stanley. The body of Richard was stripped, placed on a horse and carried to Leicester, and was buried in the Church of Greyfriars.

E. COLLINS, *Pt. Crescent, Mich.*

67. Explain how the term "carpet-baggers" originated?

Just after the Civil War Congress took the rights of citizenship from all southern people, and the people of the South could not hold any office. Then unprincipled men from the north went to the south as candidates for all the southern offices, and they were called, in derision, "carpet-baggers." O. M., *Portland, Ore.*

84. What was Prince Albert's surname?

The answer in March issue is erroneous. Victoria was a Guelph. That did not make her husband a Guelph. John Timbs, a good authority for all useless, and some useful, knowledge,—says that Albert's surname was Busici. But Grey, who prepared the *Memoirs of the Life of the Prince Consort*, having been selected for this duty by the Queen, was quoted in the *Whitehall Review*, a few years ago, as having said in conversation that the surname of Prince Albert was Wettin. R., *Lombard, Ill.*

85. Give a comprehensive explanation of the gain or loss of a day in passing either east or west around the earth.

The gaining of a day in going across the Pacific Ocean westward, say from San Francisco to Yokohama, Japan, is a state of affairs which puzzles a great many people. In explanation, let anyone imagine himself to start at noonday, and travel to the westward as rapidly as the sun; or, more correctly, as the earth turns eastward on its axis, it is evident that to him there would be no rising or setting of the sun. There could be none, as the sun would be constantly overhead. In like manner, if a person were to start eastward at noon and travel at the same rapid rate, say 1000 miles per hour, there would be to him two full days in twenty-four hours; i. e., two sunrises, two noons, two sunsets, and two nights. The reason for adding or dropping a day while crossing the Pacific, instead of the Atlantic, Indian, or other oceans, is because the 180th meridian east or west is found there,—that is, the point immediately on the opposite side of the earth from the observatory at Greenwich, near London, which navigators uniformly count as the starting-point, or zero. In traveling eastward, or against the sun's apparent course, it is necessary to drop a day, and for convenience and uniformity this is done at the 180th parallel. In like manner, in traveling westward, or with the sun, one day must be added or counted twice.

S. H. EWING, *Hamden Junc., O.*

111. When do we have the longest twilight,—in summer or winter,—and why?

We have the longest twilight in winter, because the sun moves through the heavens more obliquely, and it is longer after it has gone down before it gets low enough to make it dark.

A. C. A., *Nebraska.*

112. If your reading for life was limited to ten books, what authors would you select, and what books?

The Bible; a universal history; *Webster's Unabridged Dictionary*; Ruskin's *Ethics of the Dust*, etc.; Shakespeare's Works; Dickens' *Tale of Two Cities*, Emerson's *Essays*, Irving's *Sketch Book*, Hamerton's *Intellectual Life*; Argyle's *Reign of Law, Unity of Nature*, and *Primeval Man*. bound in one volume.

C. E. B., *West Bloomfield, N. Y.*

113. Does any portion of the United States have a vertical sun? If so, what part, and why?

No part of the United States has a vertical sun, because no part is within the tropics.

115. What are the three principal causes of ocean currents?

(1) The revolution of the earth; (2) The great evaporation of the water within the tropics; (3) The attraction of the sun and moon.

GEO. F. MANNING, *Primboy, Mich.*

Another answer: The three principal causes of ocean currents are, the heat of the sun, the rotation of the earth, and the saltness of the sea.

JOSIE R., *Woodville, O.*

116. How many complete revolutions on its axis does the earth make in one leap year?

The earth makes 366 complete sidereal revolutions in one leap year?

A. C. A., *Powell, Neb.*

Credit to E. H., *Henderson, Ia.*

120. When may the Speaker of the House of Representatives act as President?

In case of removal, death, resignation, or inability of both the President and Vice-president of the United States, the president of the Senate *pro tem.*; and in case there be no president of the Senate, then the Speaker of the House of Representatives may act as President of the United States.

NELL M. N., *Evans Mills, N. Y.*

121. Who was Rev. Paul Denton, and under what circumstances did he give the toast, "A Glass of Cold Water"?

Paul Denton, a colored preacher in Texas, advertised a barbecue where better liquor than usual would be furnished. The day arrived, and a ruffian came out of the crowd and asked him where the liquor was. Denton pointed to a spring near by and said: "There! there!" etc.

124. Before what battle was it that the troops on one side, in forming line, sang the hymn translated:

"Grant that with zeal and skill this day I do

What me to do behooves, what thou command'st me to;

Grant that I do it sharp, at point of moment fit;

And when I do it, grant me good success in it?"

And what was the result of the battle?

Lenthen, Dec. 5, 1757. The Prussians sang the hymn and were victorious?

F. C. S., *Newton Ctr., Mass.*

125. From what country were pins first brought into England, and what queen used them first?

Pins were brought into England from France, and were first used by Catherine Howard, Queen of Henry VIII.

E. H., *Henderson, Ia.*

Credit to F. C. S., *Newton Ctr., Mass.*

126. What novel by an English novelist gives a sketch of Washington in his youth?

Thackeray's *Virginians*.

F. C. S., *Newton Ctr., Mass.*

127. What nation brought numerical figures into Europe, and when?

The Arabian Moors, or Saracens, introduced them into Spain in 991.

128. When were the streets of Boston first lighted with lamps? In the year 1774.

129. What people did Ferdinand and Isabella expel from Spain at the same time that America was discovered by Columbus, and what was the result of this expulsion?

The Moors. The result of this expulsion was that Mohammedanism was checked, probably destroyed, in Spain; and all Spain, except Navarre, was united in one nation.

A. A. I., *Prairie L., Tex.*

130. What study did the Jesuits especially discourage in secular youth, and why?

History. It expands the mind, and arouses thought.

F. C. S., *Newton Ctr., Mass.*

131. When were post-offices first established in France? When in England? When in Germany?

In France, 1464; in England, 1581; in Germany, 1641. There were mounted mail-carriers in England during the reign of Henry III.; in Germany under Maximilian; in France under Louis XI.

A. A. T., *Prairie Lea, Tex.*

Credit to F. C. S., *Newton Ctr., Mass.*

132. Why did Carlyle write his first volume of the French Revolution twice over?

Because he lent the manuscript to a friend, at whose house it was burned.

F. C. S., *Newton, Mass.*

After spending many years in writing the *French Revolution*, just after it was completed Carlyle lent the manuscript to a friend whose servant carelessly used it to light a fire. Carlyle did nothing but read for three months, when he earnestly went to work and wrote it over.

M. G., *Humboldt, Neb.*

133. When and by whom were glass mirrors invented?

By the Venitians in 1300 A.D.

A. A. T., *Texas.*

134. What was the character of the citizens who founded the Roman Republic? What destroyed it?

Rome was founded by a band of shepherds and robbers. After the wars the captives were sold for slaves. These captives were as brave as, and better educated, as a rule, than the Romans. They numbered more than the native Romans. This is the chief cause of the overthrow of the Roman empire.

A. A. T., *Texas.*

135. When was the first newspaper established in England?

August 22, 1642.

F. C. S., *Newton Ctr., Mass.*

136. By whom was the present seal of the U. S. first suggested?

In the spring of 1782, Charles Thompson, secretary of Congress, presented to that body a device largely suggested to John Adams, minister to England by Sir John Puswick, an eminent English antiquary. This device was the basis of one adopted by Congress, which is still kept.

ED. H.

QUERIES.

166. How many currents in the Strait of Gibraltar, and the cause of each?

F. C. K.

167. Geographical Enigma:

I am composed of 36 letters.

My 32, 10, 19, 20, 23, is a State in the United States.

My 3, 7, 12, 21, is a point of the compass.

My 4, 33, 7, 15, 16, is a country in Europe.

My 17, 27, 6, 10, is a volcano in Europe.

My 36, 35, 34, 31, is a great lake in America.

My 1, 3, 2, 3, 25, 7, 16, is a city in Persia.

My 5, 25, 10, 8, is a chain of mountains in the Russian empire.

My 35, 5, 13, 18, 26, 10, is a country in Europe.

My 14, 7, 9, 10, 28, 19, is one of the Sandwich Islands.

My 24, 10, 11, is a division of water.

My 29, 30, 7, 22, is the emperor of Persia.

My whole is a statement often made by the English, illustrating the extent of their dominions.

A. C. A.

168. What is the correct pronunciation of "Romola"?

A. B. F., *Vermont.*

169. Did the *Speedwell* ever reach the American continent? If so, when?

E. H. R., *Mass.*

170. Who killed King Philip?

171. Give the capitals of West Virginia and Louisiana.

172. A lump of gold in the form of the frustum of a cone measured 8 inches in diameter at one end, and 10 inches at the other, its length being one foot; what is the value of the lump, if an ounce is worth \$20.69?

JAS. H. MANESS.

173. Where is the middle meridian of the United States? Which is the middle parallel of latitude? Near what large towns does each of these pass?

J. T. R., *Lombard, Ill.*

174. What is the origin of the expression, "The Schoolmaster is abroad"?

175. What is the nearest fixed star? Supposing it to be connected by railway with the earth, how long would it take to make the journey, traveling at the rate of sixty miles an hour?

176. What is the best book of travels published?

177. Where and what is the deepest place known in the Atlantic and Pacific oceans respectively?

178. Name the battles of the Civil War, giving date, place, names of commanders both Union and Confederate, and loss on each side, as near as possible, as taken from some good authority.

179. A grocer buys sugar at 6 cents per pound; if $12\frac{1}{2}\%$ per cent. of his sales are bad debts, at what price must he sell it to gain $16\frac{2}{3}\%$ per cent.

G. E. R., *Southington, O.*

180. What language has the greatest number of words in its vocabulary?

JNO. M. S.

181. What is the origin of the word "Mugwump"?

J. M. S.

182. Gives names of the commanders of the Army of the Potomac in their order.

183. In what battle was "Molly Stark" the watchword?

184. What five vice presidents have died in office?

185. In what battles had the opposing generals formed the same plan?

186. What was called the Nursery of Liberty?

187. In what war was Lincoln the captain, and Davis lieutenant?

188. Who were the Silver Greys, Hunkers, Woolly-Heads, Anti-Renters, Unionists?

189. What president was once a tailor's apprentice?

190. If a note is nominally due on Saturday (it being a holiday) when is it legally due?

191. Which is correct,—"Shakespeare is the author of 'Brevity' is the soul of wit," or "Shakespeare was the author of 'Brevity' is the soul of wit"?

192. We noticed in your February number a correspondent answering query No. 61, speaks of the ruler of Turkey as Emperor; but is he not more generally called the Sultan?

193. A correspondent, in correcting another, gives Martin Van Buren as the only man who has been President, Vice-president, Minister to England, Governor, and member of both Houses of Congress? Was Van Buren ever a member of the lower House of Congress?

JAS. B. D., *Wilmington, N. C.*

194. "He is worth a million." Parse *worth*.

195. Find the price of eggs per score when ten more in 62 cents' worth lowers the price $31\frac{1}{4}$ cents on the hundred.

196. Please correct, if wrong, the following sentence, and analyze and parse the words italicized: "Three times two is six."

197. Which is the most exhaustive, mental or bodily labor? Why?

198. Why does eating allay hunger, and why should excessive eating be avoided?

199. What is necessary on the part of the teacher to insure the success of an exercise in reading?

200. What hints or helps would you give a class in preparation for a reading lesson?

201. What position do you prefer for a reading class? Why?

202. Who is the author of *The Conquest of Peru*?

203. How many degrees, and which way from Des Moines, has a man traveled who finds his watch two hours and thirty minutes fast? Analyze.

204. A square field of ten acres is surrounded by a close board fence twelve feet high. What did the boards cost at \$13 per M?

205. A cellar 50 feet long, 40 feet wide, and 8 feet deep is half full of water. What will be the cost of pumping out the water, at five cents a hogshead?

206. Write the alphabet of small letters, grouping letters of similar form. Separate into prefix and root, and explain the spelling of *egress*, *arrive*, *affront*, *illiterate*, and *compel*.

209. Use properly the following synonymous words in short sentences: *Vanity*, *pride*; *elegance*, *grace*; *benevolence*, *beneficence*; *courteous*, *polite*; *charge*, *arraign*.

— Seven cardinal virtues should be found in a pen. It must be elastic, well tempered, durable, even pointed, easy writing, well shaped, and neatly finished. Esterbrook's have all these qualities in perfection.

The Kindergarten, AND PRIMARY EDUCATION.

All communications for this department should be sent to W. N. HAILMANN, La Porte, Ind.

I have still on hand four hundred copies of Dr. Seguin's celebrated *Report on Education*, which I will sell for the benefit of the Froebel Institute of North America, at 50 cents per copy. The book was originally sold for one dollar. It is a rich storehouse of new and fresh ideas on education. The proceeds of the sale go to the publication fund of the Froebel Institute of North America.

W. N. HAILMANN, La Porte, Ind.
All who desire to become members of the Froebel Institute of North America will please send the annual fee of \$1.00 to the treasurer, B. B. Hantoon, Supt. Blind Asylum, Louisville, Ky., or to the president, W. N. Hailmann, La Porte, Ind. Members are entitled to one copy of the Proceedings of the Madison meeting, a volume of about 200 pages, and will receive as a premium a copy of Seguin's celebrated *Report on Education*, donated for this purpose to the Froebel Institute.

— The "California Froebel Society" does me the honor of submitting to me for my answer certain strictures on the wisdom of Froebel, published in *Seguin's Report on Education*. In their letter of inquiry, Dr. Seguin is quoted at length, as follows:

"To ascertain if, in the direct teaching of objects, the kindergartners have been guided by broader views than that of lines, let us consider, for instance, their primary block or figure. Had they chosen it with their senses,—as it must speak to the senses of the child,—instead of with their mind, they would certainly never have selected the cube, a form in which similarity is everywhere, difference nowhere a barren type, incapable of instigating the child to active comparison. Had they, on the contrary, from infantile reminiscences, or from more philosophical indications, of which we have no room to write, selected a block of brick form, or a parallelogram, the child would soon have discovered and made use of the similarity of the straight lines, and of the difference of the three dimensions. By training one pupil with the cube, and another with the parallelogram, one can see the difference.

"a. Put a cube on your desk, and let a pupil put one on his; you change the position of yours, he accordingly of his. If you renew these moves, till both of you are tired, they will not make any perceptible change in the aspect of the object. The movement has been barren of any modification perceptible to the senses and appreciable to the mind. There has been no lesson unless you have, by words speaking to the mind, succeeded in making the child comprehend the idea of a cube derived from its intrinsic properties, a body with six equal sides and eight equal angles.

"b. Hold a parallelogram (a pine brick, 2 x 4 x 8 inches, if you please), and give a like one to the pupil. Put it up before you, presenting to view its 4 x 8 inches face; he does the same. We leave it up, only turning to the front its 2 x 8 inches face, and we continue until we have exhausted all the rectangular positions of our rectangle, every position having given the child a perception of each side, and their reunion in the mind having resuscitated a complete idea of the object and of its possible uses in relation to its form. What a spring of effective movements, of perceptions, and of ideas in this exercise, where analogy and difference incessantly noted by the touch and the view challenge the mind to comparison and judgment!"

— These words were first published in my *Kindergarten Messenger* in 1878. When I saw them in manu-

script, I immediately wrote a protest setting forth the weaknesses of the passage, and sent it to Dr. Seguin. He acknowledged my letter, politely intimated that probably I was right, inasmuch as he had paid comparatively little attention to the kindergarten, but preferred to let the matter stand, giving me full liberty to set forth in the editorial columns of the *Messenger* my views upon his strictures. I did not, at the time, consider it best to do so, and, as my time was soon after taken up with a number of absorbing tasks of a different nature, I lost sight of the matter.

It is a curious fact to me that eight years should pass before any of the many interested readers of *Seguin's Report on Education* should call this passage in question. Possibly, those familiar with the kindergarten considered the passage unworthy of serious attention, because it shows so plainly the writer's ignorance of the subject; and those unfamiliar with the kindergarten were not interested.

— A simple enumeration of the more glaring weaknesses will support this view. 1. The kindergarten, as such, never engages in the "direct teaching of objects." 2. Their "primary block or figure" is not a cube; it is not even a block, but the soft, worsted ball. 3. I am almost ashamed to point out the antagonism made by Dr. Seguin between the "senses" and the "mind," as if in *choosing* the senses could dispense with the mind. 4. The cube, alone, is never used in the kindergarten "to instigate comparison." In the second gift, where comparison is invited, the cube is, for this purpose, associated with the ball and cylinder. * In the third gift the cube is used for a very different purpose, *as the simplest and most easily handled plastic form element*. In the fourth gift, where it again becomes desirable "to investigate comparison," kindergartners *do* use the brick-shaped block, extolled by the doctor, but are careful to give it a more convenient size than that suggested by him. 5. To the kindergartner it must be quite amusing to imagine herself seated at a desk before her pupils, also seated at desks in regular school fashion, a cube or brick before each one, and all going through the remarkably monotonous exercise suggested by the doctor. The kindergarten never attempts to teach the child the cube or any other form in the manner indicated: it uses the cube, and the *living word* which is disparaged in this passage, for very different purposes, as I shall presently indicate, and in vastly different ways. 6. The doctor's chief weakness, a certain quasi-enthusiastic way of "begging the question," appears most clearly, perhaps, in the last sentence of the passage. It implies that the only, or least the principal, "spring of effective movements, perceptions, and ideas," lies in the *exhaustive* presentation of a mathematical solid in its various positions; that what he accomplishes with *one* huge brick cannot be accomplished with *a*

number of modest cubes; and that the mind of a little child can be thus "challenged to comparison and judgment" by successive presentations of the different faces of the same object, all of which is proved neither in this passage nor in any other portion of his Report.

— Probably a simple review of the essentials in the construction, meaning, and use of the first four gifts,—the only ones involved in the discussion,—will best indicate the direction in which lies the answer sought by the Froebel Society. Each gift aids the child in a particular phase of physical development. It comes to the child, on the one hand, as the typical representative of the outer world with reference to that particular phase; and, on the other hand, as efficient, obedient material to be used by the child in his efforts to give plastic expression to his growing notions of things.

The first gift helps the child to recognize surrounding things as distinct individualities, placed over against himself, also a distinct individuality, and teaches him the first lessons of power and control. Hence the agreement of all the balls in shape, size, and ready adaptation to the child, as well as the simple and obtrusive color contrasts. They are plainly and exclusively a number of different things, freely and fully controlled by the child.

By the second gift the child is invited and enabled to distinguish among outer things in accordance with certain prominent fundamental characteristics of shape and mobility, and to respect these in his attempts to control them.

The third gift offers him a number of simple elementary things, and enables him to construct types of things in accordance with his notions gained from experience and observation; gives him opportunities and incentives to create, as it were, a little ideal world of his own in imitation of the great world into which he is steadily growing.

The fourth gift, lastly, incites him to consider things in their relations to space and to the forces of nature, and in his play with the brick-shaped blocks of which it is composed he is constantly engaged in efforts to adapt himself to the laws of their nature, while rendering them subservient to his ends.

I have sometimes indulged in the pleasing fancy of personifying the gifts and of addressing the child in simple words. Thus the first gift says to the child, "Here we are, take us;" the second gift adds, "We are different, respect us;" the third gift exclaims, "Come play and work with us;" the fourth gift lifts the child to a still higher level in the invitation, "If you would be our master, study us."

Of course, there are added to these silent admonitions and beckonings the living words of mother, kindergarten, and playmates, who "live with the child" and are ever busy interpreting outer phenomena and things and

their relations to inner reactions. In this living intercourse there is, indeed, not a vestige of the thinly-veiled spirit of dogmatism and pedantry of the "exhaustive" teaching and full definitions defended in the Report; there is simply all-sided use and loving grateful recognition in word and deed of every phase of being in the things outside, as they come in contact with the child's life.

— These remarks, I trust, sufficiently indicate that Froebel could choose no other forms; that these were demanded by the nature of the child, as well as by the nature of things. Had he chosen a hard, loud, angular object instead of the soft, gentle, "ever-the-same" ball of the first gift, the child would be confused and repelled by its first contact with the "not himself." Had he chosen the brick instead of the cube for the third gift, the child would have lost the sense of "unity in diversity," which, in order to save him from pseudo-scientific skepticism, it is so essential to establish before he studies form and force in detail. Those who know the kindergarten are aware that, as soon as this sense of unity is established, the fourth gift, and still more, the subsequent gifts and occupations, offer opportunities to do all Dr. Seguin asks, and a great deal more.

— The question frequently comes to me, "What, in your opinion, would be the value of kindergarten schools as a part of the public school system?" The term *kindergarten school* always grates upon the ears of the followers of Froebel; not because they fail to appreciate the importance of the school, nor because they overestimate the value of the kindergarten, but rather because the two are quite distinct in proximate aims and methods, and because the term imposes on them the necessity of setting forth the differences. It sounds to them somewhat like calf-heifer, chrysalis butterfly, egg-chicken, child-boy, and the like. However, I have always waived this of late, and submitted patiently to the fact that the kindergarten is destined gradually to change the very meaning of the word *school*, as it is gradually and surely quickening and purifying its aims and methods.

— And this, too, is the chief value of the kindergarten to the school,—public and private. The kindergarten lifts the school out of the ruts from which the latter is struggling to escape, and leads it upon greener pasture. The kindergarten turns the aims of the school away from the transient interests of a groveling expediency to the more lasting concerns of man and mankind founded in their nature and destiny. The kindergarten teaches the school to look to conduct in its widest fullest sense, as the highest criterion of its work, and distrust eagerness for knowledge on the pupil's part unless this eagerness proceeds from a yearning

greater helpfulness and efficiency. Hence the kindergarten liberates the school from barren theoretical tendencies and wasteful technicalities, and renders it intensely practical, teaching it to discard all its needless scholastic ballast, to base its work broadly on life, to seek its material of instruction amid the things and tendencies of life, and to apply all its lessons directly and constantly to the needs and concerns of actual life.

— Miss Blow of St. Louis, in a conversational lecture given in Toronto, Ontario, a year or two ago, said,—

"Froebel's aim was to help people by making them help themselves, and he availed himself of all the best knowledge he could get. He went to Pestalozzi and saw his method, but found that it lacked definiteness, and he felt that if education was not based on scientific principles it would do no good. To carry out such a plan he devoted his whole life. The kindergarten system in this country has grown in the hearts of the people. The great object of the method is to develop the powers of thinking, feeling, and acting, which are inherent in the children, and which, if not developed in a right direction, are liable to be turned into a wrong course, to the detriment of society. Acting on this principle the children are taught in the pleasantest and most judicious manner possible the construction of various articles bearing on the several trades, and in this respect Froebel's idea is carried out; namely, that the practice of the muscles of the fingers at a very early age is essential to that delicacy of manipulation which is required in the finest branches of art. There is also a more refining,—a spiritual,—idea which pervades every branch of study in this interesting labor, which is that the child is taught by a process of induction to

trace the hand of the Creator in all the works brought under his notice. This is done by leading his mind through a series of relationships from the material, such as wood, trees, growth, sun, and so forth, to the immaterial,—God, heaven, eternity. The most powerful aid the system possesses is music and singing. Children are extremely fond of singing, and the kindergarten songs are all arranged with a view to the exercise of the muscles, or the faculties of the mind, so that by their aid every power and force is brought into action. Most of the work in the schools is carried on with singing and appropriate gesture, and both teachers and pupils become quite infatuated with the work; school is a pleasure, and the best of instruction is imparted in the most refining and Christianizing manner. To learn all about a thing, the plan is to make a representation of it, and it is surprising to see the handiwork of some of the little ones; and according as they advance in age the work and songs are made more suitable and progressive."

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passed, indorsing the kindergarten as the true foundation of primary school-work.

— An interesting analysis of Froebel's work appears in Prof. W. H. Payne's translation of Compayré's History of Pedagogy. We shall review it later.

— Professor Tomlins and Miss Lizzie Nast, of Chicago, will conduct the music department of Mr. Hailmann's Western Summer School at Grand Rapids, Mich.

— Who is the "Professor Charles Froebel" who lectures on the kindergarten? Will somebody kindly inform us? The reports we have received of his lecture in a city of New York indicate that he has inherited little from the source to which Frederic Froebel owes his genius; if, indeed, he shares more than the name with him.

— The following new members are reported for the Froebel Institute of North America: Mrs. A. Kirby, Battle Creek, Mich.; Miss L. R. Giffen, Lake Geneva, Wis.; Amy B. Fisk, Montpelier, Vt.; Mrs. Katherine Westendorf, School of Oratory, 9th street, Cincinnati, O.; Annie Laws, 100 Dayton street, Cincinnati, O.; Francis Field, Highland Ave., Walnut Hills, O.; Miss L. A. Scott, Milford, O.; Miss Starbuck, 35 Sanders street, Mt. Auburn, Cincinnati, O.; Geo. J. Edgcumbe and Victoria C. Edgcumbe, Benton Harbor, Mich.

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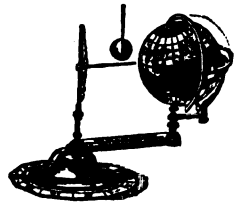


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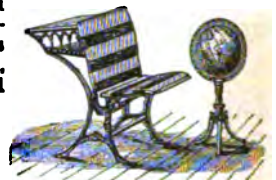


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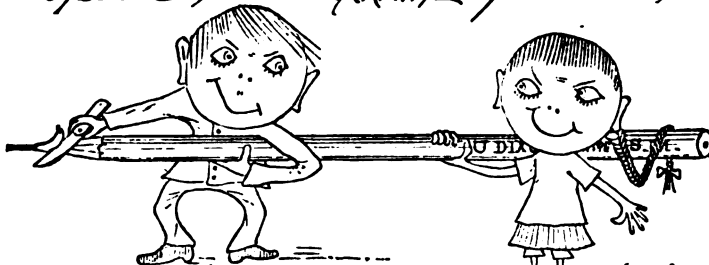
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THE teacher who has never made a formal study of "Methods," but has the art of making the most of everything she knows by way of good teaching, developing her methods of work out of the work itself, will make a better teacher than one who knows the best things in the books without the skill to harness them to school-life. The height of virtue in teaching is to know what is wanted by a close study of school-room work, and where to go for the best possible advice and counsel, principles and aids in doing that work. Books and work must go hand in hand.

THE amount of knowledge attained is more important than some critics would have us suppose; but the quality is more vital than the quantity. There is no place, perhaps, where the winnowing process is more serviceable than in the choice of what subjects to teach in primary and country schools, and what not to teach of those subjects. In our zeal over the "how" we are in constant danger of neglecting the "what" and the "what not" to teach. The teacher of the future must distinguish herself by her well-balanced appreciation of the responsibilities of her position.

LIGHTEN up on yourself and your pupils as these warm days attack you. April had nearly two weeks of unparalleled weather,—as warm, mellow, enervating as July. Teachers are tempted to make the most of such bright

days, doing all they can themselves and requiring all they can of pupils. This is a mistake. The law of health and happiness, of success and strength is, "Look well to your reserves." Victory is in what is not done, rather than in what is done; or better, perhaps, in the way we do what we don't do, if such a combination is allowable. Guard well your physical reserves.

It is a mistake to talk so much about the distinction between the moral and intellectual training. There is no good training of the mind that does not also establish the character. All education that merely stimulates mental activity, or strengthens the analytical or synthetic tendencies, leaving out of account the connection of thought with action, emotion, choice, etc., is unworthy the name. On the other hand, any attempt at moral instruction on the sentimental or credulous side without ennobling it by the highest and best intellectual activity, is out of tune with the age in which we live, is out of harmony with all philosophy. The best possible answer to the senseless talk of "godless schools" is to use the opportunities that are ours for the formation of character based upon the keenest intellectual appreciation of the condition of life, the balance of physical, mental, emotional, volitional inspirations and temptations. Not even the pastor or Sunday-school teacher has anything like the privilege of character-forming that the teacher enjoys, even in a school from which religious teaching is most rigorously excluded. The best mental training is at the same time moral training.

TEACH the pupil in every subject and at all times with a view to his power of thought, ability to think clearly, definitely, promptly, and vigorously. The art of thinking is acquired largely in the lower grades. It is a mistake, oftentimes a fatal one, to consider the high school as the place in which to teach this art. The reliability of thought is in the reliability of the premises, in appreciation of single, simple facts and truths. Processes of reaching conclusions are of no value if we are not skilled in the art of perception and conception in regard to initial facts. The expert instructor in any art detains the pupil upon the rudiments until patience is nearly exhausted, after which he advances rapidly. In thinking, the foundation of success lies in the power to handle individual facts keenly, quickly, promptly. It is this personality of acquaintance with individual facts that makes conclusions valuable. This power must come early or it will never come. The child must know what he sees, and know that he sees just that and nothing else. We talk much of the value of correct observation without emphasizing the fact that we need it as the preliminary of vigorous thought. In many essentials of thought the country school and the lower grades often do more for a pupil than the college does for another who has not had this foundation-work.

EACH mind has its own methods.—Emerson.

NEVER KILLED A BIRD.

BY WM. M. THAYER.

A Boston gentleman, who died in 1842, once said, "Thank God, I can say that I never killed a bird." The fact was a source of satisfaction to him; the memory of it was always fresh and green. Were he living now, he would make an appropriate as well as enthusiastic president of the "Society to Prevent Cruelty to Animals." But there was no such society in his day, and probably he never dreamed that there would be. That gentleman was William Ellery Channing, an able, eloquent, and famous preacher. In his boyhood he listened to the counsels of a wise, loving, Christian mother, who instructed him to be kind and tender toward every creature God had made. How well he profited by her counsels is shown by the following fact:

One day he found a bird's nest in his father's field, containing four newly-hatched young ones, that stretched up their long, downy necks and opened their mouths for food. Daily he visited them, always carrying food with him to appease their hunger. It was a real treat to him to feed them and see them grow. In three weeks they were covered with feathers, and were almost ready to try their wings. Never had they appeared so beautiful to William as then. He was almost impatient to see them spread their wings for a flight into the air, and still he scarcely wanted to part with his little charge. But one day he went to carry them food, when he found their nest torn down, and all the young birds dead upon the ground. Their father and mother were flying about frantically crying at the top of their voices. William thought that they meant to charge him with the murder of their innocents. Their piercing cries seemed to him the language of rebuke, and he burst into tears. Hastening home, with the tears streaming down his cheeks, he reported the fate of the little birds to his mother, who endeavored to console him as only mothers can. "The birds' father and mother think I killed them," ejaculated William, with a sob, "and I couldn't make them understand that I didn't." He had treated them with great tenderness, and he would not have their parents think he would be guilty of such a cruel act as to kill them.

From that time he was the best friend that dumb animals had; ever ready to plead for them and to take their part against abuse. Dogs and cats appeared to understand that they had a firm friend in him. They were on the most intimate terms with him, and showed their affection by deeds which speak louder than words. Neighbors observed the friendly relations existing between them. His parents noticed it with much pleasure. His mother thought it was the harbinger of something good in his manhood,—she hardly knew what. "We expect much from our William," she said to a friend. She meant that they expected much of him when he

became a man. Was she disappointed? Not at all. While he could say, in manhood, "I never killed a bird," he preached and labored, also, for the freedom of slaves in our land; for the safety of sailors from landsharks in our ports: for the protection of homes, with their mothers and children from the drink traffic; and for every other good cause which would remove sorrow from a home, or carry joy to a human heart.

NATURAL HISTORY PLAYS.

BY L. P. HOPKINS.

THE RAYED SEA-ANIMALS.

(For five children.)

Sea-Urchins, Sea-Cucumber, Stone-Lily, Brittle Star-fish, Common Star-fish.

All.—Five little oval things swimming about,
Soft waving fishes beginning to sprout,
Tiny clear jelly-specks float in and out;

Float in and out of the Sargossa sea,
Tacking first 'hard-a-port,' then 'hard-a-lee.'
Now toward America, then Afric-ee.

No. 1.—One little jelly-ball stopped to look up,
Saw his soft head had turned to a cup,
All very handy to breakfast or sup;
All the salt water he ate or he drunk,
Changed to a lime-leg; the jelly all shrunk,
Down to the bottom he suddenly sunk.
There his one leg was tied fast to a stone,
Eating-arms out from his cup-head were thrown;
Crinoid Stone-Lily, henceforth he is known.

No. 2.—Next little oval on five legs could swim,
While he was feeding, lo! each little limb
Grew to an arm, and a star made of him.
Red star of stone, with a hole in the center
Into which all the smooth jelly could enter;
Then 'neath a rock she hid, nought could
prevent her.

While she is growing for two or three years,
Wonderful foot-apparatus appears,
Hundreds of tube-feet in long, waving tiers.

Brittle Star-fish with a greedy mid-maw,
Tentacles waving round circular jaw,
Five open star-eyes,—no wonder she saw.

No. 3.—Third little oval, lime net-work within,
Soft tubes beneath it, to wriggle begin,
Swallow the jelly a rosette to win;
Then to a *Five Fingered Star-fish* it grew;
Lived like a brother to fair No. 2,
Knobby and wide awake, yellow of hue.

- No. 4.*—Fourth little oval another way took,
 Soon a round lime box secured for outlook,
 Into which quickly the jelly he shook.
 Down to the bottom its round, prickly shell
 Into a sand-hole designedly fell,
 As a *Sea Urchin* to grow and to swell.
- No. 5.*—No. 5 stretched to a wide greedy mouth,
 Gaping for food to the north or the south,
 With thousands of suckers not meant for a drouth.
 In his crevice he grows, the tubercular wag,
 With yellow sand gorging his big stomach-bag ;
 Great hookèd *Sea Cucumber*, savage old fag.
- All.*—Goblins of ocean, tube-footed and rayed,
 Spined and protected, so curiously made,
 Moulded and tinted to delicate shade.
 Mouth in the middle and eyes at the ends,
 Snapping at enemies, winking at friends,
 Disjointed, or broken, its members, it mends.

Teacher.—Life still renewed is the lesson it lends,
 Life from the Giver who all blessing sends.

INFECTIOUS DISEASES.

Many an epidemic of scarlet fever, measles, or diphtheria might be entirely avoided, or at least greatly curtailed in the extent of its prevalence, if the teachers of the public schools were able to recognize the appearance of these diseases in the schoolroom. Unfortunately, however, those symptoms which mark the onset of an infectious disease are often vague and ill-defined, and it is frequently difficult, and sometimes impossible, to decide just which disease is about to make its appearance. There are, however, certain danger signals which should always arrest the attention of the teacher and lead her to suspect that the illness may be due to causes dangerous to the health of the other pupils ; for example : A child appears listless and dull, shows marked inattention to study, and is disinclined to play as usual ; or, he may be unusually restless, and perhaps complain of headache, sore throat, or of pain in the back or limbs ; fever, with great thirst, may be present, or he may suffer from nausea and vomiting, or from a cough, which may be teasing, and persistent, metallic, or paroxysmal in character. These symptoms occurring in a previously healthy child should place the teacher on her guard and lead her to ask for the opinion of the family physician. Such action can lead to no evil results, even if the indisposition should be only temporary while an outbreak of contagious disease might, in this way, often be prevented. An excess of caution on the part of the teacher cannot be blamable ; certainly a child suffering from these symptoms is better off at home than in any schoolroom.—*L. W. Baker, M.D.*

MISS WEST'S CLASS IN GEOGRAPHY.

BY FRANCES C. SPARHAWK.

XVIII

It seemed to the children at first that this next country which they had to study about was very large, and then as they looked more carefully at the map drawn upon the board, one part of it seemed familiar.

"Why, that part is Africa ; do they have two Africas?" cried Mary Summers.

"No, there is only one Africa, but it is so closely connected with the other continents that I have drawn it again to show them to you all together. People have gone back and forth a great deal between these continents. You see how different it is from Africa or Europe and America. And, too, between Asia and America is a great ocean, except at one point where the two continents come near to each other, but there it is so cold that there is no travel."

"Do the black people from Africa come over into the other countries?" asked Johnny Smart. "Is that the way they come to be around here?"

Outlining on the board the map of North and of South America, Miss West showed its position from Africa, and then told the children of the origin of the slave trade upon this continent. She told them how the cruel Spaniards had worked the Indians to death in the mines seeking for gold and silver and how a priest, knowing that the Africans were stronger than the Indians, had proposed to take them instead. She told, also, in the briefest way, of the war that had come upon our own country in consequence.

"So you see," she said, "that the blacks have not, of their own will, left their country ; and there is a reason for this. Can any of you guess it?"

"It is hotter there than anywhere else, you said," hazarded Willie Sullivan, at last.

"Yes, you have found out the reason why they prefer to stay at home," she answered, "or at least one reason." And then she showed the children where other people, not black, live in Africa, and showed them how at least some of these had been voyagers across the Mediterranean. She sketched, also, the Mohammedan conquests which had brought Asia into Africa. Then she turned to the new lesson, Europe and Asia.

"These countries seem to go the opposite way from America ; they run sideways," said Carrie Blunt.

"Yes, and lots of the mountains run that way, too," added Fred White ; "and they have their water-sheds in the middle of the continents, and the rivers run down each way from them, only they run sort of north and south instead of sort of east and west, like the American rivers. I don't see why."

"In one respect the mountains are like those in America," said Miss West. "Does any one see how ?

"They run the longest way of the land," said Lily White.

"It is so in Africa, too, if only we take that with Asia and Europe as one continent," said the teacher, expressing her pleasure at this answer. Then she called for other remarks.

"I think that part," said Frank Blake, pointing to Europe, "looks as if it was speckled all over with holes. Are they ponds, teacher?"

"Yes, Frank; only ponds so big that we call them lakes, or seas, or gulfs."

"Big enough to sail on?" asked the boy.

"Yes, big enough to learn to sail on very well, but so small that the sailors soon knew all about them, and sought to find other waters and countries, just as you sometimes grow tired of your old play-grounds and look for new ones. So at last these people from Europe began to sail all over the world and find the unknown countries there. It was by sailing gradually further and further that, at last, they were led to believe that there was more land which they had not yet found. That is, at first one man thought so, and then persuaded others to agree with him. But you know about Columbus, and how he came to America from the king and queen of Spain; and after this," continued Miss West, "people from two other countries of Europe came to North America, some of them to the very part where we are now living, and others to a place not very far from here."

"The English?" cried Ned Hanson. Then came a pause.

"Oh, I know," cried Lily White; "it was the Dutch, because they came to New York."

Then Miss West showed the children the Netherlands and told them the nature of the country. She told them, also, of the industry and the courage of the Netherlanders, and that all their prosperity depended upon their commerce; "and as to the English," she said, "they live upon an island, so that they have been obliged to know how to sail."

"Or they would never get off," interposed Carrie Blunt.

"It is a large island, not far from the Netherlands," Miss West went on, "and there is a smaller one near it. Who will point them out to me? Frank, will you try?"

Frank succeeded, and thenceforth the little fellow seemed to feel a certain pride of discovery in England.

Then Miss West passed to Asia, told the class the height of the mountain ranges there, in which of them gold was found, the depth of some of the valleys. She found that the children remembered the facts about the southern slopes of mountains when she came to the temperature of different places. She told them, also, the places in which precious stones are found, where the beds of the finest pearls lie, and how men dive for

them; where spices and tropical fruits grow; and a very little about the way in which some of the people live, especially the Arabs. She also showed them Palestine, and some of the cities named in sacred history.

Fred White remarked that they had seen a map in Sunday-school, and that it had those places on it; but, somehow, he had never thought of Palestine being in any other country.

Then the teacher showed them how men passed from Asia Minor into Europe, and there, partly by their own observations, partly by her statements, the children came to have an idea of the climates and the principal countries. There was so much to be told that Miss West was careful not to give, at one time, more than they could grasp; but she did say that in Europe were strong and great nations, which sent out people to different parts of the world and had colonies there, as in early times the English and the Dutch had sent out colonies to America.

"And do the colonies set up for themselves when they get grown up, as he did?" inquired Johnny Smart.

WHAT MAY A TEACHER DO AND BE IN HER SCHOOL-ROOM RELATIONS?

BY KATE L. BROWN.

First of all, she may be sunshiny. There is nothing so warming, so inspiring to both child and adult as a magnetic, cheerful presence. "She is so pleasant!" is the universal verdict of the pupils in a certain school. There are few difficulties that may not be righted by the aid of some of this soul-sunshine. The little children look to you as their central sun. Let your love and interest speak from your eyes and beam from your face. How quickly the brightness is reflected in the little faces before you.

A visitor once entered a school-room. It was a cold, gray day, with no trace of sunbeam; yet the whole room seemed flooded with light. There were dozens of happy little faces,—there was one earnest, happy face to which all turned. As the teacher went up and down the aisles, more than one small hand caressed her gown. As she bent over one and another slate more than one little arm hugged her tightly. At recess the children hung about her as flies seek the honey-jar. "Well," thought the visitor, "I can see why my Jamie adore this teacher. She is a regular mine of sunshine. Last year he came home nervous and tired; this year it is not so."

Fellow-teachers, do we properly estimate the value of this quality? The children under our care are like so many sensitive plants. They vibrate to the slightest touch. Oh, the magic of a smile! How it chases away sullenness and discontent. There are so many school-room breezes that can be dissipated by a good, hearty laugh.

Confinement under the happiest circumstances is wearing. When we think of a little child sitting for hours in the school-room, refraining from talk or play, and sticking resolutely to work, does that not presuppose a wonderful amount of self-control on the part of the little one? If, in addition, the pupil is subjected to harsh words, fault-finding, orders given in irritable and screaming tones, will the child go home calm, happy, elevated?

Our work is wearing to both mind and body, but the more thoroughly we are under control ourselves, the less friction there will be for all. Happiness is the great apostle of cheer and light to the human soul. Cultivate in yourselves the happy spirit, and you find new beauties even in the commonest things, and may lead others to see them.

Besides being sunshiny, a teacher may be composed. There is nothing so utterly fatal to good discipline as the teacher whose wits go wool-gathering without the least warning. Keep cool, and don't be easily flustered. Suppose things do worry and fret, keep the tight rein on them or you will be tormented a thousand-fold. If you are unsuccessful; make up your mind that it is probably your own fault. Don't scold, for you not only impose a martyrdom upon helpless children, but thereby give way to a weakness for which you may well blame yourself when the time for reflection comes. We do not mean to fall into these errors, but we drift unconsciously into the worst of them. Let any one who thinks herself exempt listen a while to her own children as they play "school." Her vanity will be rudely shaken in less than five minutes.

There is also a composure in actual teaching which is absolutely necessary if children are to think carefully and accurately. No one desires wandering attention or flagging interest, but the closest attention. The most eager interest may be preserved where the teacher is calm, cool, holding the children to the point, and giving them the opportunity for deliberate, searching thought. No more timely word has been spoken on this subject than by Mrs. Kellogg, in her article entitled "The Humming-Bird Style," published in *THE AMERICAN TEACHER* some months ago.

There is too much of the excited, spread-eagle, slapdash quality in our modern primary schools. The teacher may be calm and still, quick in her movements, enthusiastic, yet composed. She should learn to move about her school-room with as little noise as possible, and insist upon it that her pupils learn to handle themselves and their school-material quietly. No one can think in a racket. "My teacher talks so much I can't study," is a common complaint with children, and with good reason. This perfect control presupposes a like control of self on the part of the teacher, and a most orderly and systematic planning of school arrangements. Have everything ready. Don't trust to inspiration.

A teacher may have tact in all her dealings with children. Study different dispositions, and realize that what may do for Susan Smith will not necessarily fit Bobby Jones' case. A little raillery for one,—the gentlest tip of sarcasm for another; a plain-spoken word here,—a tender, loving word there! Laugh off this storm, ignore some things, promptly quench others. Above all, treat your pupils as if you confidently expected their fullest sympathy and help; you will be far more likely to receive it.

Every teacher has it in her power to be a real, active, moulding influence in childish lives. You may lead young lives to be sweet and good, and that is far better than any mere intellectual attainment. For this round earth is not held up by splendid achievements in any department of art, science, or letters, so much as by the common, every-day actions of love, unselfishness, and devotion. It is the home-like virtues which, after all, make life worth the living to even the most ambitious of us.

THE ART OF REMEMBERING.

A truth to be remembered needs to be definitely, accurately, firmly fixed in the mind, with closely affiliated associations, such that, when any one of these facts or incidents is remembered, it shall inevitably recall the truth itself. We do not remember that which is indefinite when we learn it, because it is blurred like the photograph of a child that moves before the camera. When texts become familiar, while the truth they teach is indefinite, they will not be recalled when needed. Accuracy is equally important, since much of the looseness in theologic thought, much of the tendency to question the reliability of Scripture, results from lack of accurate knowledge of the phraseology of texts, of the exact meaning and special significance of words.—*Methods and Principles.*

HABIT.

We have accustomed ourselves to apply the term "habit" only to the vicious tendencies of mind and body. We are liable to forget that in the true sense, and under proper restrictions it is an important means of conserving mental energy. Our faculties have an inherent tendency, when left to themselves, to form wrong habits of action, so that people naturally refined are safe only when they have established correct modes of activity.—*Methods and Principles.*

FORGETFULNESS is such a recognized bane in human experience that the teacher is inexcusable if he does not use every means at his command to enlighten his pupils in the art of not forgetting what has been once known.

PRIMARY READING.

BY MARY L. CLIFFORD.

Outline of Work for the First Year.

1. Short and simple sentences from the blackboard. The phonic analysis of words already learned. The phonic synthesis of words.
2. Simple sentences and stories containing only words already learned from the blackboard, from a primer, or first reader.
3. Reading from first readers, or carefully graded second readers, children's magazines, and story books.

Suggestions as to Methods and Means.

The best results in reading can only be secured in the first year's work by an intelligent use and judicious combination of the different methods of teaching known as the Word and Sentence methods, the Phonic and the Script methods. It is only by the use of all these different methods that a safe and sure foundation can be laid for all future work in reading.

Teacher and pupils will need to become acquainted in the school-room, at first by means of conversational lessons or familiar talks about interesting subjects, and these lessons should soon develop into reading lessons. At first very short and simple blackboard-lessons, in which words and short sentences or phrases are recognized by pupils as wholes, and not as made up of parts. The teacher should have in mind a list of words selected from the primer or first reading-book in use, and these words should be taught a few at a time in sentences, but the words need not necessarily be taught in the order given in the reading-book.

It is often a good plan to indicate to the children the subject of a lesson, and let them give their own thoughts and ideas for the subject-matter of the lesson, which the teacher will print and write upon the board. By skillful questioning the teacher can bring out sentences containing the words she wishes to teach. It is not wise, always, to discard or be afraid to use words which may serve only to interest the pupils at the time, but which may not be among those selected by the teacher for the work. Such words as *beautiful*, *butterfly*, *Christmas*, etc., might be used by the pupils and teacher without harm, although they serve only to interest pupils in the work, and may be soon forgotten by them. These words need not receive much attention, but it often happens that they are remembered until they appear in late work. There is seldom too little drill-work on words and sounds; but many pupils are not benefited by this work, because it is not made pleasing and interesting to them.

The teacher must herself judge, from the age and mental capacity of the children, as to the number of words which had best be taught before the sounds are introduced, and as to the amount of blackboard work necessary before they are able to use reading-books.

Books can be used quite early in the year if the transition from blackboard to books is not too suddenly made.

When pupils are ready for the sounding of words, ask them to listen carefully as you say such a word as *man*, very slowly, and tell you how many different sounds or parts of the word they can hear. They will readily tell you three sounds, and will then be ready to point out and make the separate sounds themselves. There are many ways of making this sounding or phonic drill interesting to them, and the sounds will be easily remembered.

SKELETON LESSONS IN PHYSIOLOGY AND HYGIENE.—(VII.)

BY ALICE M. GUERNSEY.

Having considered the general structure of the body, together with the effects of narcotics upon the nervous system, and the processes of digestion, respiration, and circulation, there remain various loose ends to be fastened, rivets to be tightened. By no means must we let slip from the minds of the children the lessons on the danger arising from a violation of the laws of health; we should give special care and emphasis to the effects of alcohol, tobacco, and opium on life and health. A story may help to impress the lesson.

Once upon a time, a father built a fine, large house in the midst of a beautiful garden. In the walls of the house were water-pipes and gas-pipes and telegraph wires; the library was stored with interesting books, and the rooms were hung with pictures. In one room was placed a large safe filled with money. When the house and grounds were finished, the father gave them to his son. What would you have done with such a present? ("Lived there." "Spent the money." "Read the nice books." "Played in the beautiful garden.")

Let me tell you what this boy did. He lived in the house and played in the garden for a while, and then he wanted something new to do. "What's the use of having money if I don't enjoy it?" he said. So he went to the safe, took out a ten-dollar bill, lighted it with a match and watched it burn; it made a pretty little fire, and so he tried another and another. "I think I'll do this every day," he cried. "No matter if it does smoke up the walls. I like to smell the burning paper, and to see the fire. Now, what shall I do next?"

He was thirsty; so he turned a faucet and drew a glassful of clear, cold water. After drinking it, he said, "I don't think much of this colorless stuff. There isn't taste enough to it." So he put into the big tank in the cellar something to color the water and give it a stronger taste. "There," he cried, as he turned the faucet again, "that's more like it! I'll not drink any more such weak stuff as simple water." But the colored water dripped into the pretty white marble basin under the faucet, and stained it a dark, ugly brown, that would

not wash off. When a drop fell on the carpet, the curtains, and the stuffed furniture, it made big holes in them ; and after a while it made big holes in the pipes, too, and leaked through the walls, staining the fine paper, while no water, of course, could come to the faucets through the spoiled pipes.

Then the boy twisted or broke the telegraph wires, so that the messages that should have gone to the kitchen went to the parlor, or did not go at all. "This house isn't large enough," he told the carpenter, one day. "I want it changed, and you must fix it just as I tell you." So the carpenter came and took out pieces of the walls, here and there, and put great flaps of sail-cloth in their place. These would swell out in the wind, and the boy would say, "See how much I have improved my house ; how much larger it is." The carpenter left some of the beams and timbers hanging loose, and they swung to and fro in the wind. At last one of them fell on the boy's sister and killed her. But the boy didn't seem to care. He only said, "People must keep away from my house if they don't want to be killed."

Another time he cried, "O dear ! I'm getting dull and stupid. My head aches, and my stomach aches. I must do something to stir me up." So he went to the barn, got a crow-bar and began knocking out the foundation-stones from one corner of his house. He worked away very busily, till he had made wide openings through which you could see into the cellar. That night was a very cold one, with a high wind. Things froze in the cellar, and that corner of the house shook in the wind till it seemed as if it certainly would be blown over.

One day the boy went out for a horseback ride. "Faster, Prince, faster !" he said to his pony, as he whipped him harder and harder. "Oh, this is capital fun ! Hurry, Prince ! You must go faster still. There come the cars ! We'll have a race. Quick ! quick ! I want to go like the wind." The willing horse did his very best, as his master whipped him ; but it was too much for the poor creature, and he dropped down dead just as he got to the gate.

"These pictures are tiresome old things," thought the boy, one day, "and this piano has the same notes over and over. I can't bear to have things keep right along in the same way." So he took a paint-brush and daubed the pictures over with red and green paint ; then he broke some of the piano wires, so that a harsh, unpleasant sound came from them every time he touched the keys.

He kept on in this way for years, until he had spoiled the house and everything about it. One night, in a hard storm, the house was blown down and the boy was killed in the ruins. What do you think of him ? (Encourage free comment.)

"So you think it is a 'make-believe story,' do you ? Well, all good 'make-believe stories' mean something. Can you think what this means ? Each one of you lives

in a beautiful house which your Father has given you. I don't mean the house that you call home, where your parents and your brothers and sisters live, too ; I mean a house of your very own, where the real George or Katie lives." (If the children fail to catch your meaning, bid them look to see you close and open the "windows" and "doors" of *your* house. Try similar exercises with them, till they fully grasp the idea of "the house we live in," given us by the All-Father.)

"Since you all agree that we have houses of our own, I have another question for you. Do we go to work to spoil them, as the boy did ? How about the burning of money ?" (Impress the lesson of money being worse than wasted when spent for liquor, tobacco, or opium, which injures instead of doing him good. Recall the teaching in regard to the cumulative action of narcotics ; in most cases, the little creates a demand for more. Make emphatic the danger of the first glass,—the first cigarette.

(Compare the changed water in the pipes to the blood poisoned by narcotics, so that it fails to supply strength-giving food to the several organs ; the injured wires and the shattered foundations to the paralyzed nerves ; the deceptive sail-cloth walls to the fatty deposits and increased size so common in the beer-drinker. The death of the sister will readily parallel the impaired vision and hearing ; the over-strained heart, like the horse, cannot bear the exertion. The frequent result is the complete destruction of "the temple of the soul.")

Of the actual diseases brought on or fostered by liquor, etc., teachers in this grade can say but little. The craziness of delirium tremens may be touched upon, but my own feeling is that the dangers resultant from the slow, inevitable poisoning, the weakening of the vital forces of the system by "moderate" drinking or tobacco-using, are more important topics ; that we should aim,—not to frighten the children into an avoidance of the evil, but to give them such knowledge as will make them total abstainers because of calm, intelligent convictions on the subject. Diseases of the stomach and heart, enlargement of the blood vessels,—shown in the reddened skin,—headache, neuralgia, and rheumatism are frequent results of the use of liquors. Alcohol and opium, especially, tend to make a person old while yet young ; to destroy will-power, and to make men more like brutes. We may not teach that such are the inevitable results, but exceptions prove the rule. Simple references to crime, insanity, and idiocy, as effects of the use of alcohol, may well be made.

SLATE WORK.

1. Write the name of your house ; of its door ; its windows ; its outside covering ; its telegraph-wires.
2. How did the boy in the story use his money ?
3. How did he spoil his house ?
4. How do boys and girls waste money ?
5. How do they spoil their own houses ?

PRIMARY LESSONS IN BOTANY.

BY MRS. FANNY D. BERGEN, PEABODY, MASS.

VI.—Simple and Compound Leaves.

Have on the desk a variety of leaves. From these choose some simple leaf,—lilac or apple, for example,—and hold this up before the class. By an object-lesson,—which will be of far more value and interest if each child has a leaf to study during the talk,—call attention to the parts of the leaf as shown in fig. 1; viz., blade (A), and petiole or leaf stalk (B). Also notice the

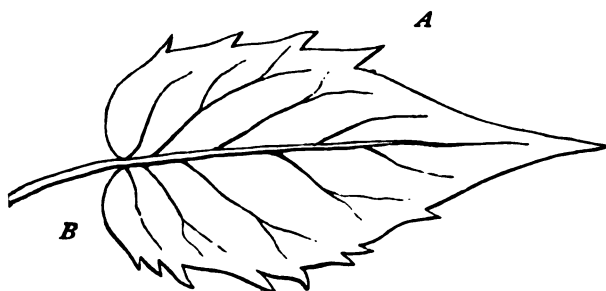


Fig. 1.—Petiole and Blade of Leaf.

margin (figs. 2, 3, 4) in a general way.* By aid of questions and hints from the teacher, the children can quickly learn that a simple leaf is one single leaf.



Fig. 2.—Entire Leaf.

Then select some common pinnately-compound leaf,—that of the locust or rose, for example. Lead the class to see that this leaf is made up of several simple leaves, attached to a common leaf-stalk. Count the number of simple leaves, which are called leaflets,—a word that means little leaves. Tell them that such clusters of leaflets make what we call a compound leaf. Hold up various leaves from the specimens on the table, and let volunteers tell whether the ones selected are simple or compound.



Fig. 3.—Undulate or Wavy Leaf.

Now hold up some palmately-compound leaf,—e. g.,

* The teacher may develop the subject of leaf-margins and forms of leaves, as regards their general outline, in as many lessons as time will admit, illustrating by drawings on the board; or, far better, by the use of the leaves themselves in the hands of the class.

that of the horse-chestnut,—and ask to which class it belongs. Compare with the locust-leaf, and ask the pupils to point out the difference in the arrangement of leaflets. Show them how those of the locust are in pairs, like the barbs on a feather; hence such leaves are said to be pinnately-compound, which means compound in feather-fashion.



Fig. 4.—Serrate Leaf.

Then point out how the horse-chestnut leaflets radiate from the end of the leaf-stalk, something as do the fingers from the palm of the hand. Hence compound leaves of this sort are called palmately-compound, which means compound in hand-fashion. The pupils can learn to distinguish the two kinds of compound leaves, and can remember common terms which may take the places of the names 'pinnate' and 'palmate,' if the latter are too difficult to learn.

At the close of the lesson ask each pupil to bring into the class next day a certain number of simple leaves, also of compound leaves, and to be able to classify the latter.

When quite familiar with the points of this lesson, the children will do well to tabulate their knowledge thus:

Leaves.	{	1. Simple; e. g., lilac, apple.
		2. Compound; { a. Pinnate,—locust.
		b. Palmate,—horse-chestnut.

TEACH INTELLIGENTLY.

It cannot be too constantly borne in mind that the true measure of mental development is not what is learned, but what is understood. The old days have, it may be hoped, gone for ever, when children were required to memorize great quantities of dry rules, definitions, and formulas, which conveyed no distinct ideas to their understanding and which they were not even expected to comprehend till some future day, when as their powers approached maturity the hidden meaning might dawn upon them. The writer has very vivid recollections of school-work of this kind. There can be no doubt that such methods have been responsible for the life-long dislike to books and study of many a pupil who might, under a more intelligent teacher, have become a well-educated and useful member of society, Training, not cramming, and thinking, not memorizing, are the proper functions of teacher and pupil, respectively.—Ex.

OBSERVATION LESSONS ON ANIMALS.

TEACHER'S NOTES AND CHILDREN'S WORK.

BY JENNIE M. ARMS.

I.—SPONGES.

SPECIMENS AND APPARATUS for a class of fifty children: Fifty skeletons of the hard-head or commercial sponge (spongia);* fifty vertical sections of the same; a wooden tube and branching paper tube; a model† representing living sponge. A Mediterranean sponge.

REFERENCE BOOKS: *Guide for Science-Teaching*, No. III.; Hyatt. *Zoölogy*; Packard. *Life and her Children*; A. Buckley. *The Standard Natural History*, Vol. I.

Whole skeletons and vertical sections soaked in water and partially dried before the lesson is given.

OUTLINE OF LESSON.

The sponge a part of sponge animal,—what part? Children feel of their hands, made of flesh and bones; bones equal skeleton; most animals made of flesh and a skeleton; when animal dies, skeleton remains.

SKELETON OF SPONGE ANIMAL FOR STUDY.

Shape of skeleton—variable; therefore skeleton has no fixed or constant form. One part flat; children describe; why flat? Natural position of sponge; children point to upper part or top, sides, lower part or base.

Porosity of sponge—holes or pores large and small; large holes at top, small ones at sides and base; no holes in base as large as those at top. Show wooden tube; children describe and compare with branching paper tube; holes of wooden and branching tubes the openings or mouth of the tubes. Children discover tubes in sponge; tubes large and small; large holes openings of large tubes, small holes openings of small tubes. Where do large tubes end? Children examine vertical sections; large tubes end in interior, do not run to base; many small lateral tubes leading to large, central tube; many tubes cut across, leaving holes.

Fibres.—Children hold sponge to light; see tufts of hairs or fibres; children tear off thin bits of their specimens; describe;* fibres make a network. What are tubes made of? Tubes made of fibres. What are fibres made of? Children squeeze sponge; fibres made of an elastic substance, which resembles horn, and is called chitine; hard-head sponge compared with Mediterranean sponge; the latter of finer texture and better quality.

SPONGE ANIMAL.—Homes of sponges; children point them out on map; sponges, how obtained? [See *Guide*, No. III, figs. 28, 29; also *Standard Natural History*.] Children describe model. **Shape of sponge animal**—variable; skeleton concealed by flesh; color of flesh;

sponge animal attached by base, therefore a stationary animal. **Porosity of flesh** [model represents animal undisturbed with the mouths of the tubes open]; large holes at the top, small ones at the sides.

Circulation of water through the body.—Water enters small openings at sides; by means of the model, children give circulation of water through small, lateral tubes into large, central tubes. Where does water flow out? [Illustrate by blackboard drawing. See *Life and her Children*, p. 39, fig. 12.]

Food—Digestion.—In-going currents of water contain food; jug-shaped cells [for drawings, see *Guide*, No. III, figs. 10, 11]; work of cells; waste products discharged in out-going currents.

Sponge animal grows from an egg; eggs pass out of the large openings.

Bearing holes or pores the distinguishing characteristic of sponges; therefore sponges belong to group of pore-bearing animals.

Summary of lesson given by the children. After summary, children draw and explain vertical section of skeleton, then write a description of the sponge, which is a language as well as a science lesson.

The following descriptions were written in about thirty minutes. The errors are left uncorrected, but are indicated by interrogation marks. Such errors are often helpful in the way of pointing out the child's difficulties to the teacher, and suggestive in the preparation of other lessons. It must be borne in mind that the descriptions given in this series of articles are written by children who, with few exceptions, have had no previous training in zoölogy, and whose only preparation has been the observational lesson that precedes their written work. This being the case, we should expect to find the observations meagre at first, and the order poor. By comparing the descriptions of the first part of a course of lessons with those of the last part a marked difference is observable.

Descriptions by Pupils.

"I have been looking at a sponge. The sponge grows on the rocks. The flat side of the sponge is the side that the sponge grows on. The larger holes are on the top of the sponge, and the small holes are on the sides, and the middling-sized ones are on the base of the sponge. There are little stones and broken shells on the base. If you hold the sponge to the light you see is made of little network. There is a large tube in the middle of the sponge." [Child of 8 years.]

"My sponge looks like half an egg in its shape. It is flat at its base, and pointed at its top. It has on its sides little holes, and on its top larger holes. These are the openings or mouths to the tubes which run through the body. These tubes are made of fibres of horn. On the outside of the sponge little hairs join and form a network, and that is what the sponge is made of." [Child 9 years of age.]

"The sponge is an animal which grows upon rocks

* Specimens marked with an asterisk can be bought of Mr. Samuel Henshaw, Nat. Hist. Soc., Boston, Mass.

† The model can be made of common clay, and painted a dark, reddish-brown color. If cut vertically, it can also be made to represent two vertical sections of the animal.

* If the teacher has a microscope, a thin section of the sponge can be shown.

under the water. The skeleton is what we use to wash with. It is made of horny fibres. As I see it now it is of a roundish shape. The base grows on a rock, as shown by its flatness, and the bits of shells and stones which are caught[?] in it. They grow in warm water, on the southern coasts. The outside is covered with holes, those on the top being made larger than those on the sides. These holes are the openings of tubes. The large ones go through from the top to the base[?]. The small ones on the sides join the larger ones, as shown in the vertical section. The water goes into the small openings through the tubes into the larger ones, and is forced upward out of the large openings by the water which is continually coming in by the small tubes." [Girl of about 12 years.]

THE SPONGE.

"That which we ordinarily call a sponge is only the skeleton of the animal. This skeleton is of a different shape in different sponges, and in the horny sponges, which are the ones in ordinary use, it is elastic, and can spring back to the former shape after being squeezed. Although skeletons may vary in shape, there is always one side which is flat and even, and on this side the sponge stands attached to rocks, and so this under surface is called the base. In studying a sponge, you have the animal in its natural position if your specimen is resting on this base. The skeleton of the sponge is full of holes, some large and some small, the large holes appearing only on the upper point of the sponge, while the smaller holes cover all the sides of the sponge. These holes are the openings to tubes which run throughout the whole skeleton, forming a network of tubes of different sizes. The large tubes never reach the base, but stop about two-thirds of the way down, while the smaller tubes run into the big ones from every direction, even from underneath.

The living sponge is found in warm waters, it is conical in shape[?], and reddish-brown in color; the flesh has many small holes, and the large ones at the apex. The sponge eats by drawing in water through the small tubes. All the tubes are lined with minute jug-shaped cells, which catch small plants and animals in the flowing water, and drawing them in, digest them, throwing out the waste which is thrown out of the large holes at the top. Sponges multiply by eggs which are allowed to float out of the large holes into the sea, where they fasten, and soon become adult sponges." [Boy of about 13 years.]

The lesson on the horny sponge is followed by one on the silicious sponge (Geodia),* and the silicious and horny sponge (Chalinula)*. The children describe these sponges, and then compare them with the typical horny sponge, giving the resemblances first, and afterwards the differences.

* After an easterly storm a large number of specimens of Chalinula can be collected on Revere Beach, which can be easily reached from Boston.

— How can I tell the signals and the signs
By which one heart another heart divines?
How can I tell the many thousand ways
By which it keeps the secret it betrays.

— Longfellow.

CHATS ON WAYS and MEANS of TEACHING.

BY ANNA B. BADLAM.

Having no piano in my room, and wishing to have the physical exercises interesting as well as beneficial, I encouraged the children to bring two bean bags apiece. Most of the children are now supplied with them, and I wonder how I ever did without them. The exercises are spirited and varied, and as the children are growing rapidly, and there is some danger of their becoming round-shouldered, part of our daily exercise is to march about the room with the bean bags upon the heads. The children enjoy this part of the bean-bag game exceedingly, and take pride in searching their seats without having dropped the bean-bags.

As the work in number progresses, make the questions as *practical* as possible. Have *constant* and *daily* repetition of the work, and present it with as *varied* exercises as possible. We must bear in mind that "little by little" will at last accomplish a great deal. I have tried the plan of having five or ten minutes concert exercises regularly at the beginning of each session.

Last year, believing that if the child once knows the powers of the letters of the English alphabet, he has the key to unlock most of the difficulties of the language as they appear in print, I was in the habit of having the class give me the simple sounds *daily* during the first five minutes of the morning session. Sometimes the class gave the *sounds*, as I pointed to the different letters of the alphabet. Sometimes I called the letters by *name*, the children giving the appropriate sound.

As the result the children had the power, later in the term, to find out words for themselves, and if a word were miscalled I had but to say, for example, "The *a* is long," to have the mistake corrected.

In the same manner I began, last February, to give the children short board reading lessons, not exceeding five minutes in length. As the children had become quite fluent readers, I began to use the *Monroe Advanced First Reader* for this purpose. The interest of the children was very great over these stories that were given to them in a *serial* form, so to speak, for the stories were too long to be finished in one or two lessons. I put these extracts upon the board before school, and many of the children would immediately turn and look at the board as they entered the room, to see what the new work might be. "Little by little," each day, the children put into script the lessons from the *Primer*. I set myself no limit, but taking a little each day, the class finished copying these stories by June. At first I set a copy as a guide to the children, but they soon became independent.

If one studies a foreign language he will find it a matter of some difficulty to repeat a sentence correctly

after any one, though he may understand the sentence thoroughly.

Thinking some such work in their own tongue might be useful to the class, I have taken five minutes each afternoon, reading stories (*Second Reader* grade) to the class, requiring the children to repeat after me each sentence as it was read. Lately I have called on individual children to do the same work. The children have had read to them, and have thus repeated to me, the contents of two *Second Readers*.

When a new expression occurs, the children volunteer an explanation. The expression, "starred with dandelions," came up the other day, and was clearly explained by several of the children. Aside from the fluency the children have gained in repeating sentences, they have derived a great deal of instruction from many of the stories, and secured quite a large number of new words and expressions, which differ according to the vocabularies of the various authors.

AMERICAN TEACHERS' BANDS OF MERCY.



Every teacher who obtains twenty signatures to this pledge,—
"I will try to be kind to all HARMLESS living creatures, and try to protect them from cruel usage," and sends to Geo. T. Angell, Esq., President of Parent Band, 96 Tremont street, Boston, name of "Band" and its president, saying it is a branch of American Teachers' Band, will receive without cost,—

- (1) A beautiful metallic badge.
- (2) Full information what to do and how to do it.
- (3) Band of Mercy melodies.
- (4) Ten lessons on kindness to animals, with stories, etc.
- (5) *Our Dumb Animals*, monthly paper, one year.

There are, April 10, 1886, 5,159 Bands in the United States, with over 322,800 members.

621. Salisbury, N. C.: *Zion Wesley College Band*. P. and S., Mrs. M. E. Harris.
622. Williamsport, Pa.: A. E. Pott.
623. Rochester, Minn.: P. and S., Alice Swasey.
624. Capoesa, Pa.: *Young American's Band*. P., M. J. Gougham; S., Edward Jordan.
625. Mt. Auburn, Ill.: *Pleasant Point Band*. P., Clara Long; S., Etta Milligan.
626. Toledo, O.: P. and S., Jeannette Clafin.
627. Fairpoint, O.: *Buckeye Band*. P. and S., M. E. Anderson.
628. Morris Cross Roads, Pa.: P. and S., Nellie G. Scott.
629. Shavana, Tex.: *Lone Star Band*. P. and S., F. de Zavala.
630. Samokin, Pa.: *Longfellow Band*. P., Dora Fisher; S., Mary J. Carr.
631. Fremont, N. H.: *Granite Band*. P., Wm. B. Beede; S., F. Herbert Lyford; T., E. B. Rowe.
632. Merrimack, N. H.: *Granite State Humane Band*. P. and S., Fannie E. Brown.
633. Capoesa, Pa.: *Minooka School Band*. P., Richard J. Cusick; S., Jeremiah Cotter.

634. Allendale, N. J.: *Good will Band*. P., John Yeomas, Jr.; S., Anna Van Blarcom; T., Alfred Ackerman.
635. Norfolk, Neb.: *Burroughs Band*. P., F. Shearer; S., E. Holt.
636. Mt. Auburn, Ill.: *Irving Band*. P., A. Dunn; S., H. Dunn.
637. Brussels, Wis.: *Gardner Band*. P., Jos. Henquinet; V. P., Nathalie Newville; S., L. Addie Brown.
638. Kirkwood (Mo.) Seminary: *Alice Cary Band*. P., Ida Semans; S., Luella McElhinney.
639. *Grant Band*. P., Kenosha Sessions; S., Emma Bayley.
640. Peru, Neb.: *Little Protector's Band*. P. and S., E. M. Ord.
641. Wheatland, Pa.: *Meadow Lark Band*. P. and S., A. Bentley.
642. Wheatland, Pa.: *No. 2 Band*. P. and S., Hettie Moore.
643. Whig, Tenn.: *Cheerful Band*. P., Cheatham Hampton; S., Eddie Bowman.
644. Kansas City, Mo.: *Honor Bright Band*. P. and S., M. Little.
645. Santa Anna, Cal.: *Good-will Company Band*. P., J. Garner; S., W. Bush.
646. Williamsport, Pa.: *Clay School Band*. P. and S., Annie C. Carlisle.

IMPORTANT TO TEACHERS AND PARENTS.—A GRATIFYING DECISION AT THE MASS. STATE HOUSE.

The application of the Massachusetts Society for the Prevention of Cruelty to Animals for a law making it the duty of all teachers of public schools in the State to teach the protection of birds and their nests, and kindness to the lower animals, has resulted in the following most gratifying decision:

In the Service of the Commonwealth.

STATE BOARD OF EDUCATION OF MASSACHUSETTS, }
 STATE HOUSE, BOSTON, Apr. 10, 1886.

GEO. T. ANGELL, Esq., President of the Massachusetts Society for the Prevention of Cruelty to Animals:

My dear Mr. Angell: I am of the opinion that Section 15 of Chap. 44 of the Public Statutes requiring the teaching of humanity, universal benevolence, etc., makes it the legal as well as the moral duty of every teacher in the Commonwealth to teach kindness toward the lower animals.

I am most sincerely yours, J. W. DICKINSON,

Sec'y of Mass. Board of Education.

The law specifies "the president, professors, and tutors of the University at Cambridge and of the several colleges, of all preceptors and teachers of academies, and all other instructors of youth."

It is understood that the joint Committee on Education of the Senate and House, six of its eleven members being lawyers, agree with the secretary that this law makes it the legal, as well as moral, duty of all teachers in Massachusetts, from the president of Harvard University to the primary, to instruct their pupils in kindness to the lower animals.

Kindly permit me now to say through your columns that all Massachusetts teachers, by addressing me or calling at our rooms, 19 Milk Street, Boston, will be furnished by our society full instructions, without cost.

GEO. T. ANGELL,

Pres. Mass. Soc. P. C. A.

We take from the *Boston Transcript* of April 9 the following report of the hearing that led to this decision:

THE EFFORT TO PUT THE TEACHING OF HUMANITY INTO THE SCHOOLS.—At the hearing before the Committee on Education, Wednesday, on petition of the Massachusetts Society for the Prevention of Cruelty to Animals, for a law requiring the protection of birds and kindness to the lower animals, to be taught under direction of the respective school committees in the public schools of Massachusetts, Mr. Angell presented the petitions of the clergy of all the Protestant denominations, also the letter from Archbishop Williams, also the petitions of the Massachusetts Horticultural Society and the leading farmers of Massachusetts, and a number of letters from influential citizens, including William E. Sheldon, editor of the *AMERICAN TEACHER* and Secretary of the National Teachers' Association; Frank B. Sanborn, inspector of public charities; Probate Judge George White, and the venerable and Hon. Marshall P. Wilder. Hon. Charles Flint, for many years president of our School Board; Hon. T. W. Bicknell, of the *Journal of Education*; and Quincy E. Dickerman, principal of the Brimmer School, all addressed the committee in favor of the law.

TEACHERS' METHODS.

FORM LESSON.

Note.—This lesson should be given at nearly the close of the second year's work in form.

Point.—To develop ideas of circumference and circle, and give terms.

Method.—Teacher calls attention of the class and shows them a solid, as a cylinder. "What have I here?" "A cylinder."

"Who will find some part of this cylinder?" Children raise hands, and teacher has children find parts until one end is found.

"What is this part called?" "A face."

Teacher has some child draw a picture of the face.

"What have you done?" "Made a picture of the face."

"What do we call a picture of a face?" "A figure."

"When you made this figure, what did you do?"

"Drew a line." "What kind of a line?" "A curved line."

"What does the curved line do to the figure?"

"The curved line goes around the figure."

(If children give no proper answer here, the teacher must illustrate by referring to the school yard, and asking what the fence does to the yard, or something similar.)

"Yes, the curved line goes around the figure, but there is *one* word that means the same as 'goes around,' and is better. Who can tell what it is?"

Children or teacher give term 'bounds.' "What does the curved line do?" "It bounds the figure."

"Then we may say the figure is —?" "Bounded."

"Tell me all about it." "This figure is bounded by a curved line." "Who knows what this curved line is called?" Children or teacher give term, 'circumference.'

"Now tell me all you have learned." "This figure is bounded by a curved line called 'the circumference.'" Teacher has children find different parts of circumference.

Teacher, having made a point in the center of figure, tells a child to find something else. The point is found; children telling what it is. The teacher now points to the circumference, and children give name. As she touches different parts, the children should be led to say that each is a part of the circumference.

"I want you to notice and see what I do, and then tell me what you can about the parts of the circumference." Teacher measures from several points of the circumference to the center. "What can you tell me about every part of the circumference?" "Every part is the same distance from that point." "Yes, that is right; but instead of saying the same distance, you may say every part is equally distant from the point.

You have learned that every part of the circumference is equally distant from a point. "Where is the point?" "In the figure." Teacher give term, 'within.' "Where

within the figure is the point?" "In the middle or in the center." Children measure and see that it is in the center. "If it is in the center, what may it be called?" "The center."

"Tell me all about the parts of the circumference." "Every part of the circumference is equally distant from a point within, called the center."

"Now I want you to tell me all you have learned about this figure." "It is bounded by a curved line called 'the circumference,' and every part of the circumference is equally distant from a point within called 'the center.'" "Who knows what we call such a figure?" Children or teacher give term 'circle.'

Teacher questions children on what the curved line is called, what it does to the figure, what we call the point in the center, what the figure is called, etc. "What is a circle?" "A figure bounded by a curved line called 'the circumference,' every part of which is equally distant from a point within called 'the center,' is called 'a circle.'"

Children make circles, telling what is made, and what a circle is, each time.—MARY I. PETTINGILL, *Lewiston, Maine.*

VOWEL SOUNDS.

[Specific directions for making the elementary sounds.]

a long . . . Speak *a* as it is pronounced in the alphabet for its long sound.

ă short . . . Try to pronounce the word *at* without touching the tongue to the roof of the mouth. Make the sound short as possible.

a medial . . Hold the tongue and palate perfectly still, and then try to pronounce the word *air*.

a flat Speak the word *ah* correctly, and it will be the sound of *a flat*; or try to speak the word *art* without stirring the tongue.

â broad . . Pronounce the word *awe* correctly; or hold the tongue still in the bottom of the mouth and endeavor to pronounce the word *all*.

ē long Speak *e* as it is pronounced in the alphabet, for its long sound.

ĕ short Open the mouth about far enough to articulate *a long*, then, keeping the lips still, endeavor to pronounce the word *ebb*. Make the sound very short.

ī long Speak *i* as it is pronounced in the alphabet for its long sound.

ĭ short Prevent the tongue from touching the roof of the mouth, and try to pronounce the word *it*, taking care to make the sound as short as possible.

ō long Utter the natural alphabetical sound of *o* for its long sound.

ŏ short Hold the tongue perfectly still in the bottom of the mouth, and try to pronounce the word *on* quickly.

- o* slender . . . Keep the tongue clear from the roof of the mouth, and try to pronounce the word *do*.
- u* long . . . Try to pronounce the word *due* without touching the tip of the tongue to any part of the mouth.
- ü* short . . . Endeavor to pronounce the word *up* without closing the lips.
- u* medial . . . This sound is *o* in *do* shortened, and is heard in the word *pull*. If the *u* in this word be stripped of its consonants and still retain the same sound, it will be *u medial*.

—ALBERT D. WRIGHT.

WRITING.

Four *purposes* support instruction in this branch of study. All good methods grow out of these.

I. To educate (to lead out energy and develop power) in the way of apprehending form while *teaching* (occasioning in each pupil's mind correct ideas of linear forms, in certain combinations and relations).

II. To educate while *training* the mind to represent (image to itself) the forms which have been taught.

III. To *train* the *will* to reproduce at fingers' ends exactly what the mind conceives as the product of good teaching.

IV. To *train* the *muscles* of the hand and arm till they become strong, firm, and flexible, obedient to the will; the end in view is to secure precision, rapidity, and ease.

NECESSITY OF TEACHING I.—Teaching is *not* putting anything into the mind. It is awakening or occasioning in the mind correct ideas of form, by presenting the correct form again and again in a *new light* every time. This excites the mind. It puts forth energy and comes into possession of knowledge.

METHODS AND DIRECTIONS.—

1. Present the correct form.
 - a. As a whole.
 - b. On the blackboard.
 - c. In such a way as to excite curiosity and hold attention.
2. In teaching bring the *central, leading form* into prominence.
3. Appeal to the imagination.
4. Give large copy.
5. Have pupils trace the correct form.
6. Have pupils reproduce each form *to develop the idea*.
7. Compare incorrect with correct form. Use colored crayon.
8. Present the correct form with objects. Have class do the same.
9. Lead pupils to analyze each letter unconsciously as far as possible.
10. Thinking exercises.

TWO COURSES OF INSTRUCTION NECESSARY—*General and Systematic*.

1. Each child must be trained to copy carefully and neatly every word, phrase, or sentence learned.
2. The class must be taught one point at a time, the straight line, the correct slope, the connecting curve, the capital curve, etc., in a natural order based upon a proper classification of the script letters.

NECESSITY OF TRAINING II, III, IV.

1. To develop the *will power* while recalling, representing, and reproducing the forms which have been taught.
2. To strengthen the muscles of the arm and hand (the servants of the will).

METHODS AND DIRECTIONS.

1. Have pupils write a great deal, always at the top of effort.
2. Give exercises to make the muscles strong and flexible.
3. Give exercises to make the muscles firm, obedient to the will.
4. Give special attention to the strengthening of the will. The will unlocks power and measures the amount of energy it *chooses* to liberate.
5. Have pupils do a little and do it well.
6. Make all stimulation as far as possible subjective.
7. Be sure that interest and pleasure attend all drill.
8. Require pupils to write lightly.
9. Require smoothness, accuracy, and finish first, rapidity afterwards.
10. Teach and train unconsciously all you can. Use double lines ———

GENERAL DIRECTIONS.

1. Carry forward each method steadfastly to the end.
2. Remember that "practice makes perfect."
3. Use slate and blackboard a great deal. Form, not finish.
4. Teaching and training should be logically separate in the mind of the teacher, but *carried forward* simultaneously. The second is subordinate to the first, but one can never take the place of the other, or precede it altogether in time.
5. Do not leave the child to follow an *ideal* standard too soon.
6. Realize the true character and importance of the work, *education* and *training*.

The *end* of all teaching and training should be, to have pupils write well, not simply in a writing-book, but anywhere.—I. FREEMAN HALL, *Supt. of Schools, Leominster, Mass.*

—Review, *review*, REVIEW; reproducing correctly the old, deepening its impression with new thoughts, correcting false views, and completing the true.—Hon. John M. Gregory.

SUPPLEMENTARY READING.

A TELL-TALE OF SPRING.

I've found out Spring's secret;
 I know why she's late;
 The mischief, the truant,
 She cares not who wait,
 Who freeze, and who shiver,
 And pine for the sight
 Of one yellow daffy,
 Or violet white.

Ah, yes, I've her secret;
 I'll give and not sell;
 I'll tell it, I'll tell it,—
 My tongue burns to tell.

The mischief, the truant,
 No wonder she's late,
 Coming all the way round
 By the Golden Gate!

Yes, that's where I tracked her;
 I caught her to-day
 Lying down by a river
 With lambkins at play.

The mischief, the vagrant
 And spendthrift, I swear
 She was tossing roses
 Aloft in the air;

As children toss bubbles,
 To shine one by one,
 And float for a minute,
 Then die in the sun.

Her grass lay all scattered;
 Who chose, helped themselves;
 The hills were like velvet
 Spread green for the elves. "H. H."

THE DRAGON.

In olden times, when a flood or an earthquake or any other great disaster came, destroying human life and property, it was thought to be the work of a great dragon. Many stories are told about heroes who went out and killed those dragons, and thus saved the lives of their countrymen; in fact, great books have been written about such men. Now, there is a dragon in the world to-day that is destroying thousands of human lives and millions of dollars' worth of property every year. He seizes bright, handsome boys and changes them into the sallow, shrunken loafers that lounge about the streets and saloons with their mouths full of tobacco juice and vile oaths. He changes the prosperous young man into the ragged, filthy drunkard; the kind husband and father into the brute who beats his wife and children to death. He takes away from men their hard-earned money, and leaves their wives and children to starve. He causes them to commit all manner of crimes. There is no end to the terrible deeds of this dragon. All over

the world people are praying to be delivered from him. The man who could succeed in killing him would receive the gratitude of the whole world. Quite an army of people have enlisted to fight this dragon, but have not got the best of him yet; there is not enough of them to kill him yet. Who will enlist to fight this dragon? It is the dragon of strong drink.—*Mrs. Shoemaker's Young Folks' Speaker.*

HOW THE FLOWERS GROW.

First a seed so tiny,
 Hidden from the sight;
 Then two pretty leaflets
 Struggling toward the light;
 Soon a bud appearing
 Turns into a flower,
 Kissed by golden sunshine,
 Washed by silver shower;
 Growing sweeter, sweeter,
 Every happy hour!
 Kissed by golden sunshine,
 Washed in silver shower.

—*Presbyterian.*

DON'T.

I believe, if there is one word that grown-up folks are more fond of using to us little folks than any other word in the big dictionary, it is the word *don't*. It is all the time "Don't do this," and "Don't do that," and "Don't do the other," until I am sometimes afraid there will be nothing left that we can do. Why, for years and years and years, ever since I was a tiny little tot, this word *don't* has been my torment. Its "Lizzie, don't make a noise, you disturb me," and "Lizzie, don't eat so much candy, it will make you sick," and "Lizzie, don't be so idle," and "Don't talk so much," and "Don't soil your clothes," and "Don't" everything else. One day I thought I'd count how many times I was told not to do things! Just think! I counted twenty-three *don'ts*, and I think I missed two or three little ones besides.

But now it is my turn. I have got a chance to talk, and I'm going to tell some of the big people when to *don't*. That is what my piece is about. First: I shall tell the papas and mammas,—Don't scold the children, just because you have been at a party the night before, and so feel tired and cross. Second: Don't fret and make wrinkles in your faces, over things that cannot be helped. I think fretting spoils big folks just as much as it does us little people. Third: Don't forget where you put your scissors, and then say you s'pose the children have taken them. Oh! I could tell you ever so many *don'ts*, but I think I'll only say one more, and that is,—Don't think I mean to be saucy, because all these *don'ts* are in my piece, and I had to say them.—*E. C. Rook.*

FRIDAY AFTERNOONS AND SOCIAL HOURS.

These Exercises may be used as Readings or Recitations. The Editor will be glad to receive contributions from teachers and others.

OUR LITTLE QUEEN.*

Here's our lovely little queen!
We think her the fairest ever seen.
We form about her a ring so round;
We bow, we smile, and kneel before her on the ground.

We love her more dearly ev'ry day,
And try to please her, too, in ev'ry way.
These are her pages, standing by her side,—
By-by; they're going to give little queen a good, long
ride.
—*Helena Choate.*

* DESCRIPTION OF "OUR LITTLE QUEEN."—A sweet faced little girl, age six or seven years, is seated in a chair of light weight. Her dress is of white or dark, rich material. A gilt scepter (easily made) is held in right hand; a crown upon her head. On either side is a boy somewhat larger than the "queen" (pages). Five or six little girls, with fancy caps upon their heads, come trouping in and suit actions to words of the poems. At the close, the pages pick up the chair and bear away the "queen," while the tiny maidens follow suite.

CHARLIE'S TRUMPET.

I've got Charlie's trumpet;
Everybody knows it;
Toot! toot!

It makes a great sensation
Every time I blow it;
Toot! toot!

If you've got the headache,
Don't come too near it;
'Toot! toot!

Won't you stop and listen
Just for half a minute?
Toot! Toot!

Only let me show you
About how much noise is in it;
Toot! toot!

A LITTLE BOY'S DREAM.

Last night, when I was in bed,
Such a funny thing seemed to me:
I dreamed that I was grandpapa,
And grandpapa was me.
And he was such a tiny boy,
And dressed in baby clothes;
I thought I smacked his face,
Because he would not blow his nose.

I went walking up the street,
And he ran by my side;
Because I walked too quick for him,
My goodness, how he cried!

And after tea I washed his face,
And when his prayers were said,
I blew the candle out,
And left poor grandpapa in bed.

THE DAY'S ORATION IS IN FLOWERS. (For Memorial Day.)

The day's oration is in flowers;
Sing, ye gardens! Speak, ye bowers!
Let Flora's rarest banners wave
And fold about the soldier's grave.
Lo, June in red, and May in white,
Their hands will clasp, their brows unite
Above the mounds spread far and wide;
In vales and on the mountain-side;
Round monuments that speak and breathe,
The floral paragraphs we wreath,
Will emblem glories that entwine
About their brows in climes divine.
Then sing ye bowers; ye gardens, vie,—
In silent eloquence reply,
While incense floats from sea to sea
On winds that sigh, "*Let all be free!*"
—*E. L. Hull.*

WILLIE'S SPEECH.

[For a very little boy.]

I am just a little fellow, and I can't say much. My speech is this: I am glad I am a boy! I had rather be a boy than a girl, or anything. Boys have good times. They can swim and skate and coast, ride horse-back, climb trees, play hop-toad, make cartwheels of themselves, and slide down the banisters; and most girls can't. I wouldn't be a girl,—no, not if you'd give me the best jack-knife in the world!

WHY, AND BECAUSE.

[One asks, and four answer.]

Wine that is beautiful, wine that is red,
Why must I shun it with fear and dread?
Because,—"*At the last it biteth like a serpent, and stingeth like an adder.*"—[Prov. xxiii, 32.
Why, when it moveth itself aright,
Must not I look at the tempting sight?
Because,—"*Wine is a mocker.*"—[Prov. xx, 1.
Why shall we stand, though it rage and mock,
As straight as a line and firm as a rock?
Because,—"*We will drink no wine.*"—[Jere. xxv, 6.
And though we should meet its serpent charm,

Why are we sure we shall take no harm?

Because,—We will "touch not, taste not, handle not."

—[Col. ii, 21.

But if it should tempt us our pledge to break,

Why are we sure the safe course to take?

Because,—“We will look not upon the wine.”—

[Prov. xxiii, 30.

Then why is it best from the wine to haste,

Lest we might touch, or handle, or taste?

Because,—“Woe unto them that follow strong drink.”

—[Isa. v, 2.

DECORATION-DAY.

Let little hands bring blossoms sweet

To brave men, lying low ;

Let little hearts to soldiers dead

Their love and honor show.

We'll love the flag they loved so well,

The dear old banner bright,

We'll love the land for which they fell

With soul, and strength, and might !

—S. M. Knier.

'TIS SPRING-TIME.

[Motion song.]

'Tis spring-time, bright spring-time ! All nature is gay,

For winds cold and piercing have all passed away ;¹

And now the bright sunshine gives warmth to the air,

And changes delightful are seen everywhere

Hip, hurrah ! hip, hurrah !²

The farmer with keen plow is tilling the ground,³

Then seeds with his hand he will scatter around ;⁴

The little birds build their warm nests in the trees,⁵

And twitter and chirp as they fly in the breeze.⁶

Hip, hurrah ! hip, hurrah !²

The buds on the hedge-rows all open out so,⁷

And gay-colored blossoms begin now to grow ;

The daisies, and cowslips, and primroses sweet,

We make into bouquets, so pretty and neat.⁸

Hip, hurrah ! hip, hurrah !²

The call of the blue-bird so joyous doth rise,

As cheerful and happy now onward he flies :⁹

The lambkins are skipping and running with glee,—

A pleasing example to you and to me.

Hip, hurrah ! hip, hurrah !²

—R. P. Graham.

(¹) Rub hands briskly together, then gradually extend them right and left respectively. (²) Wave right hand twice. (³) Extend arms to the front, fists closed. (⁴) Imitate sowing of seed. (⁵) Point to the right or left. (⁶) Hands raised to level of head, fingers in rapid motion. (⁷) Hands partly extended to front, palms facing upward ; tips of fingers and thumbs together at first, then expanded. (⁸) Imitate the act of smelling flowers. (⁹) Point with extended finger.

LITTLE BY LITTLE.

Little by little the world grows strong,

Fighting the battle of Right and Wrong ;

Little by little the Wrong gives way,

Little by little the Right has sway ;

Little by little all longing souls

Struggle up nearer the shining goals.

Little by little the good in men

Blossoms to beauty for human ken ;

Little by little the angels see

Prophecies better of good to be ;

Little by little the god of all

Lifts the world nearer the pleading call.

—Exchange.

THE MOSS-ROSE.

The Angel of the Flowers, one day,

Beneath a rose-tree, sleeping lay,—

That Spirit to whose charge is given

To bathe young buds in dew from heaven.

Awakening from his slight repose,

The Angel whispered to the Rose,—

“O fondest object of my care,

Still fairest found where all is fair,

For the sweet shade thou'st given me,

Ask what thou wilt, 'tis granted thee.”

Then saith the Rose, with deepened glow,—

“On me another grace bestow.”

The Angel paused in silent thought,—

What grace was there the flower had not?

'Twas but a moment.—o'er the Rose

A veil of moss the Angel throws ;

And robed in Nature's simplest weed,

Could there a flower that Rose exceed?

—Krummacher.

A MONGOL FABLE is as follows: Two geese, when about to start southward on their autumn migration, were entreated by a frog to take him with them. On the geese expressing their willingness to do so if a means of conveyance could be devised, the frog produced a stalk of strong grass, got the two geese to take it, one by each end, while he clung to it by his mouth in the middle. In this manner the three were making their journey successfully, when they were noticed from below by some men, who expressed their admiration of the device, and wondered who had been clever enough to discover it. The vainglorious frog, opening his mouth to say, “It was I,” lost his hold, fell to the earth, and was dashed to pieces.

Moral: don't let pride induce you to speak when safety requires you to be silent.

— We trample grass and prize the flowers of May,
Yet grass is green when flowers do fade away.

QUESTION DRAWER.

Communications for this Department should be addressed to QUESTION DRAWER, 3 Somerset Street, Boston, Mass.

"How shall I control whispering in my school?"

—, III.

X. Y. Z.

Whispering is in most cases a habit. Change the habit.

1. Secure periods of quiet in your school, such that pupils can hear the clock tick while they continue their work. In many schools such quiet, even for a limited time, is of the nature of a new sensation.

2. Having made sure that all are prepared for the work in order during the next period, ask all to refrain from whispering while you are hearing the recitation, and, at its close, ask how many have done so. This action is not to carry with it any idea of punishment for those who have failed.

3. Giving opportunity between recitations for necessary communications, gradually extend the periods for which reports are taken until you have reached the limit of the half-day. Finally, dismiss those who have observed your request, and require others to remain and write a statement of facts. Require those who cannot do this to report to you in person. Be watchful.

This plan, judiciously pursued, will, in a short time, develop in most of your pupils such self-control that you will be able, by your own watchfulness, to control the rest. To these you can issue more positive commands. Do not punish your pupils for what they tell you of themselves. For some this may prove too severe a trial. Those who will continue to lie to you under the conditions above stated, are morally diseased, and require special treatment.

"CAN you make a few suggestions to aid a primary teacher who, while she has had no experience in the use of the molding-board, is expected to use it in teaching geography?" J. M. W.

A——, Mass.

The molding-board should be used to illustrate only what cannot be better understood by examining the object itself or a picture of it. Except in large cities most "physical features" are familiar to the children; but in any case a faithful picture is more stimulating to the imagination than the usually inaccurate molding-board representations of hills, valleys, rivers, etc.

In teaching the configuration of the continents, the molding-board is helpful if rightly used. The teacher should aim to make the representations as accurate as possible, and, to this end, must practice until she is sure of every detail which she attempts to reproduce. Before molding a continent, its outline should be carefully drawn on the board, and then filled in with the sand in the presence of the pupils. Then the mountains should be raised, and the water courses traced. As an aid in locating these, long pins may be stuck into the board when the outline is drawn.

Many teachers carry the work farther, and locate cities, productions, etc.; but, as the sand-map cannot be so accurate as the one in the geography, it is best to use the latter to show everything but the relief of the continents.

The best material for this work is molding-sand, which can be obtained at any iron foundry. Before using, it should be wet slightly and left to stand until damp all through. Then it should be worked over carefully to remove all lumps, and if it is not to be used at once it should be left in a compact heap, sprinkled on the outside with water, and covered, to keep it in a condition for use.

For further suggestions read the chapters on geography in *Parker's Talks on Teaching*, published by E. L. Kellogg & Co., New York.

"My pupils waste much valuable time, every day, in getting ready to work. When they are not hunting for sponges and pencils or trying to borrow, they are continually asking, 'Please can I get some water to wash my slate?' or, 'May I borrow a knife to sharpen my pencil?' Can you suggest a remedy?"

—, A. Y.

A PRIMARY TEACHER.

Tie every child's sponge to the frame of his desk by a string about half a yard long, and appoint some pupil in each "row" to attend to the wetting of all the sponges before each session of school. Require every pupil to give you a slate-pencil and a lead-pencil to keep in trust. Appoint several children to sharpen these at stated times, and to report to you those pupils whose tools show careful use. Children who break the points of their pencils through carelessness should be made to wait until the time comes for sharpening all the pencils before their property can be put in order. Besides these pencils, which should be kept for class-work, the pupils ought to have, at least, slate pencils of their own, for which they alone are responsible. If these are dull, they must use them so until they can remember to sharpen them out of school-hours. If materials of any kind are mislaid or forgotten, the unfortunate owners should be made to stay after school, to do their work, with whatever the teacher keeps to lend careless children at that time. *Do not allow pupils to spend school-time in getting their tools in order, and do not let them borrow of their more careful classmates.*

These may seem like severe measures, but they are the only ones that can cure heedless children of a fault which must cause them no end of trouble if it is allowed to develop.

"AT what age should one begin to teach?"

It depends largely upon circumstances,—the character of the school, and the ideas, and experiences of life. As a general rule young men are not fitted for good work under 21. Women often succeed well who begin at 18. The office of the teacher is a responsible one, and requires some judgment to manage and teach well.

NOTES AND QUERIES.

Questions and answers for the Notes and Queries should reach us by the first of each month to insure publication in the following number. We desire that our patrons should consider themselves at liberty to take part in the discussions of the Notes and Queries. You are invited to send in such questions as you desire to have answered; we also solicit answers to questions given. ALL COMMUNICATIONS FOR THIS DEPARTMENT MUST BE SENT TO THE EDITOR, 3 SOMERSET STREET, BOSTON, MASS.

ANSWERS TO QUERIES.

137. Give table of the descent of the throne of England, showing clearly how George I. became king.

George I. was the son of Sophia (Electress of Hanover). She was the daughter of Elizabeth, Queen of Bohemia, and Elizabeth was the daughter of James I. Therefore George I. was the great-grandson of James I. C. W. HUGHES.

138. What was the name (surname) of the Georges? What is Victoria's name?

The answer follows from the answer to 84. The Georges were Guelphs, without dispute. Victoria was a Guelph by birth. By marriage she became a Busici, according to Timbs; a Wettin if we follow the Hon. C. Grey. As to Victoria's boys, it may be a wise child that knows his own surname when authorities disagree. R., Lombard, Ill.

139. Give the capitals of the following: Louisiana, Dakota, Montana, and Arizona.

The capital of Louisiana is Baton Rouge; of Dakota, Yankton; of Montana, St. Helena; of Arizona, Prescott.

GEO. H. BUCK (11 years of age), Manchester, N. H. Credit to many others.

140. What cities have been capitals of the United States? New York, Philadelphia, and Washington. C. W. F.

141. What city is noted for the export of gold? San Francisco. GEO. H. B., Manchester, N. H.

142. What is the largest city in the United States not on navigable waters?

Indianapolis is the largest city in the United States not on navigable waters. G. H. B., Manchester, N. H.

143. Mention three animals found only in Africa. Hippopotamus, giraffe, and gorilla. ED. HALL.

144. The following expression was heard from the pulpit. "Unless you repent, where God and Christ is you cannot go." Is *is* or *are* correct?

God and Christ are one, according to the Scripture; therefore *is* is correct. E. H. HENDERSON, Iowa.

According to Harvey, *is* is incorrect. A compound subject must have a plural predicate. M. G.

Ten others agree with M. G.—Ed.

145. Should a singular or plural verb be used as the predicate of a collective noun?

A singular verb should be used with a collective noun, as: The army is marching. E. H., Iowa.

If the collection is spoken of as a whole, use a singular verb; if individually, use a plural verb. Examples: The jury agrees in a verdict. The jury disagree as to a verdict. A. A. T., Texas.

146. Are participial adjectives compared?

When they denote a *quality* rather than an *act*, they usually admit of comparison.

147. "Why come you dressed *like* a village maid, That are the flower of the earth?"

Parse *like* and *maid*.

"Like," is an adverb modifying dressed. "Maid" is a noun, objective after "to" understood. ED. HALL.

148. Write the plural of attorney-general, postmaster-general, brigadier-general.

Attorneys-general, postmasters-general, brigadier-generals. E. H., Texas. Credit to E. H., Iowa.

Attorneys-general, brigadiers-general (*Swinton*); Postmaster-generals, brigadier-generals (*Morris*). C. M. HUGHES.

149. When was the piano-forte invented?

Schroter, a German organist; Marius, a French harpsichord maker, and Crestofali, an Italian harpsichord maker, conceived the idea about the same time—the Italian the earliest, in 1714. C. W. G.

The piano-forte was invented about 1710 in Italy. E. H., Iowa.

150. What was Marquis of Montcalm's name?

Louis Joseph De Saint Veran, Marquis de Montcalm.

I. M. B., Ft. Edward, N. Y.

151. Where is Mason and Dixon's line?

Parallel Lat. 39° 43' 26"; separates Pennsylvania from Maryland. C. J., Yellow Springs.

Mason & Dixon's line was a boundary line between Maryland and Pennsylvania. Mason & Dixon were selected in England to run this line, which they did. This line received its great notoriety from the fact that Pennsylvania and all the States north of it became free States, while Maryland and all the States south of it remained slave States. The phrase came to mean the boundary line between slavery and freedom. The late Civil War sponged out this famous line. It has no existence now excepting that part of it which originally and at present forms the boundary between Pennsylvania and Maryland. CARRIE W. HUGHES.

152. In the reign of what Roman emperor did public churches begin to be built?

During the reign of Alexander Severus (222–235) a Christian Church was built. This seems to be one of the first historical references to a church as a publicly consecrated building.

LILLIAN F. SHELDON, No. Beverly, Mass.

In the reign of Constantine, the first Christian emperor.

ELLA J. D., New York.

Credit to F. C. S., Newton Ctr., Mass.

153. When was the first astronomical observatory erected in Europe, and where?

In 1472, at Nuremberg. A. A. THOMAS, Prairie Lea, Tex.

In 1561. F. C. S.

In 1580, on the island of Huen. The oldest existing observatory is at Paris, erected 1667–71. C. W. G.

154. What five great potentates reigned in Europe contemporaneously in the sixteenth century?

Charles V., Francis I., Henry VIII., Pope Leo X., Tolyman, the Magnificent.

QUERIES.

210. What shall I do in order to become a good conversationalist? and what shall I read?

211. Will some experienced teacher give a plan of work for the sixth, seventh, and eighth grades?

212. Has any American author, statesman, or public man been buried in Westminster Abbey? If so, who was it?

213. How can the value of 776.5504 cubic inches of gold, at \$20.69 an ounce, be found?

214. Why do we say, "A yew"? The article *a* is changed to *an* before a word beginning with a vowel sound.

215. Is Cadiz on an island? If so, what is the name of the island?

216. Is it ever correct to say "peoples"?

217. How can a hectograph be made?

218. What time was it in China when school began this morning?

219. Who stopped to kiss a little slave girl on his way to execution?

220. Why is the 8th day of January celebrated in Louisiana?

221. Who first used the expression, "A government of the people, by the people, and for the people"?

222. Of whom was it said, "When the ermine of the official robe fell on him, it touched nothing less spotless than itself"?

The Kindergarten, AND PRIMARY EDUCATION.

All communications for this department should be sent to W. N. HAILMANN, La Porte, Ind.

I have still on hand four hundred copies of Dr. Seguin's celebrated *Report on Education*, which I will sell for the benefit of the Froebel Institute of North America, at 50 cents per copy. The book was originally sold for one dollar. It is a rich storehouse of new and fresh ideas on education. The proceeds of the sale go to the publication fund of the Froebel Institute of North America.

W. N. HAILMANN, La Porte, Ind.
All who desire to become members of the Froebel Institute of North America will please send the annual fee of \$1.00 to the treasurer, B. B. Eunkoon, Supt. Blind Asylum, Louisville, Ky., or to the president, W. N. Hailmann, La Porte, Ind. Members are entitled to one copy of the *Proceedings of the Madison meeting*, a volume of about 200 pages, and will receive as a premium a copy of Seguin's celebrated *Report on Education*, donated for this purpose to the Froebel Institute.

— A correspondent asks, "When would you, in teaching arithmetic, abandon the use of objects, and when would you begin the use of abstract numbers?" This twin question seems to indicate that the correspondent refers to some definite point of time, some definite stage in the child's development. If this is the case, it will be impossible for me to answer the question. The use of objects in teaching arithmetic seems to me desirable long after beginning the use of abstract numbers; and, on the other hand, numbers begin to be used abstractly, and, indeed, are used abstractly as soon as the child has recognized two *single objects* as *two objects*.

The fact is that, at least during the period of ordinary school-life, the young human being never in any direction reaches wholly or perfectly abstract ideas of things or qualities of things. His so-called abstract ideas are merely approximations, moving more or less steadily toward abstractness. Similarly the child's ideas, even in the earliest stages of development, never are wholly or perfectly concrete, that is connected with notions of things, but begin to be tainted with abstractness from the very moment when the child begins to notice the connection of his *inner* notions with *outer* things. Indeed, it is the thing that is concrete, the idea,—however much or little there may be of it,—is always abstract, in so far as it does not need for its existence in consciousness the presence of direct sensations. Even the images of things, lingering in memory, are true abstractions, though of a lower order than the generalizations derived from things. Older persons who may have forgotten how they grew in power of abstraction, will do well to observe little children before venturing upon a judgment in this question. They may then find that the child's emancipation in his thought-life from direct sensations,—and, hence, from the necessity of concrete things,—is a much more gradual process than is claimed by book-psychologists; and also, that he begins to revel in abstractions at a very early period, long before school-life, indeed. He may find it exceedingly difficult to fix the birth of the abstract idea, but he will surely see it try its wings as soon as the child uses the first word intelligently. Ever after it will grow in power and independence with the help of language

which mediates between things and thought; but we must remember that, like the fabled phoenix, it cannot forever subsist on air, but must now and then touch earth again to obtain a new lease of life.

Considerations, similar to these, must guide us in answering our correspondent's twin question with reference to arithmetic. They will teach us that the use of things cannot at any time be wholly abandoned. Again and again, though at increasing intervals of time and with decreasing persistence, we should return to things,—actual or imaginary,—for purposes of verification or to gain new points of view. New processes, new applications, new classifications rest securely only on this foundation. On the other hand, we shall learn that abstract notions represent, from the very start, the real inward gain of all this school-work with things; that whatever remains in the mind as a permanent residue from this work is abstract; that, indeed, the teacher's very first business on the child's entrance in school is to determine with the help of things and words how far the child has progressed in abstract notions; and that, consequently, we should "begin the use of abstract numbers" on the first day of school life.

CHARACTER *vs.* KNOWLEDGE.—*Intelligence* reports Col. Parker as saying that "there are two chief motives in education in deadly conflict with each other,—the one to give the child character, to make the most of him for this life and the next; the other, to give him knowledge, to fill him with information." This seems to place education into a Herculean sort of predicament. It seems to imply that character and knowledge lie at opposite ends of the road; that to seek the one means to forego the other; that a man of character must needs be an ignoramus, and a man of knowledge devoid of character; that the Eden of Character is hopelessly lost to him who plucks fruit from the Tree of Knowledge. It seems impossible that Col. Parker could hold such a view. The trouble with dying educations is not that they give the pupil too much knowledge, but that they do not give enough of it, and besides neglect character; that they do not make the most of the knowledge they give, and fail to let the pupil assimilate it and put it into his life; that they hover forever on the surface and never dive into the depths, busying themselves with the flitting shadows instead of plunging into the everlasting realities of things.

The new education does not call for less knowledge and more character, but for knowledge *and* character. It is well aware that knowledge without character is futile, and that character without knowledge is powerless; hence, its road leads to character through knowledge. It aims at all the knowledge dying educations labored to impart, and at a great deal more; but it would ever pass beyond, making character the final aim, applying all knowledge-getting to character-building,

measuring all learning by its influence on character, its aid to a high, upward and outward tending, helpful life.

Thus it finds wisdom and virtue, deep insight and high endeavor, the intellect and the spirit, interest and a noble will, the "I see" and "I am" on the same road of harmonious growth and development; it trains character to appreciate and love knowledge, and teaches knowledge eagerly, humbly, and efficiently to serve character, its rightful king.

— It is certainly anachronistic in this century of scientific inquiry to use as arguments the names of distinguished individuals. Truth and progress care little for persons. So fully is this recognized by the workers in the field of thought to day, that it has become a mark of hopeless mediocrity to cling to one's own or the "master's" previous utterances from any other consideration than that of established truth. To fling back a statement of principle with a respected name is an insult to the bearer of the name as well as an offence to the scientific spirit of the age. Those enthusiastic kindergartners who are ever ready to use Froebel's name as a cloak for reprehensible practices should remember that he himself was relentlessly opposed to this use of names. Not only is he always careful to prove his position at every step on truly scientific ground, but he holds himself ever ready to abandon a doubtful proposition, and frequently gives up old error for new truth. He was in no way a Pythagorean, and the adage, "He has said so," had no value for him.

— "Every child, either at home or in an organized class, should, from his early years, be directed in his spontaneous activity. The direction should have reference to a harmonious development. If the child can be started off from the first in the race of life, in a way that will coöperate with nature in producing natural results upon himself, no after-labor need be spent in preparing him to begin his public school work."—*J. W. Dickinson.*

— To codify the utterances of any man, however good and wise, creates a scholastic dogmatism which is opposed to scientific development. It prophesies the downfall of the "system" which, subsequently, will be useful only as food for newer and freer growths or as a text for the antiquary. It seeks to keep the "young out of the reasons," and to condemn mankind to a deepening winter of unproductive discipleship.

— "It is the testimony of consciousness that *the outer reacts upon the inner or spiritual*, and thereby presses the mental conceptions nearer the truth. Therefore, whenever a pupil attempts to put forth his thought in oral words or in visible forms, the conception itself becomes clearer."—*Howard Sandison.*

— Why is it that some teachers and kindergartners are so sensitive to criticism? Does the criticism hurt them or the truth? I mean honest criticism of what they do in their professional work. It seems to me that such criticism is always helpful. Even when it is at fault, it gives you an opportunity to vindicate truth.

— An animated discussion rages in some of the school journals concerning the propriety of saying, "Add *figure 4 to figure 6*," or, "Add *number 4 to number 6*." Until the matter is decided it may be advisable to use a neutral form, and "add 4 to 6."

— I read much of late about the period "when reason begins to predominate over memory." It seems somewhat like an inquiry about the period when the stomach begins to predominate over the food, or the carpenter over his tool-chest.

— Why should we be so fearful about stepping on somebody's toes? In the onward march of progress let incompetents with tender toes keep out of the way. Progress has no time to stop for such insolent little impediments.

KINDERGARTEN ECHOES.

— In Italy the Minister of Public Instruction has ordered the gradual adoption of "Froebel's Method" in all elementary schools.

— *The Toronto Kindergarten* for March contains articles from James L. Hughes, Daniel Batchellor, John Ogden, and others. The monthly costs fifty cents per annum.

— The Philadelphia Sub-primary School Society will open next September a normal kindergarten training school, under the direction of Miss Sarah A. Stewart, whose excellent work at Milwaukee is well known. Miss Stewart will make the school a success.

— The executive committee of the Sub-primary School Society of Philadelphia reports for 1885, 29 free kindergartens with an enrollment of 1,001 and an average attendance of 701. The Society expended \$10,799.06, and has on hand \$3,300.39.

— Prof. Wm. L. Tomlins and his chief assistant, Miss Lizzie Nash, will conduct the department of vocal music at the Western Summer School of Primary Methods at Grand Rapids. Prof. Conrad Diehl, of New York, formerly of St. Louis, will have charge of the department of Primary Drawing. For circulars, address W. N. Hailmann, Laporte, Ind.

— The Silver-street Kindergarten Society of San Francisco reports three kindergartens with a total enrollment of 220, and a "housekeeper's class" with an enrollment of thirty girls from nine to fourteen years

old. The society is now incorporated, and has planted a permanent fund looking to the abrogation of exclusive reliance in begging. The expenditures for the year were \$2,728.24, the cash on hand \$2,251.80. The leader of the society, Mrs. Wiggin, graces the annual report with one of her sprightly and vivid accounts that have brought her so much deserved success and sympathy.

— In the Forty-ninth Annual Report of the Massachusetts Board of Education, Secretary J. W. Dickinson prints an excellent article on the "Relation of the Kindergarten to the Primary School." He reaches the conclusion that "there is a culture which should precede and prepare the children for their primary-school work;" that "the development by a course of kindergarten exercises prepares the children to enter with facility upon that course of elementary instruction which it is within the province of primary schools to conduct;" that "it would be well if the spirit of the kindergarten were introduced into all primary education;" also that "it would be well if the kindergarten could be made a universal institution."

— Miss Bessie Hailmann has been compelled by ill-health to resign her position as principal of the Kindergarten department of the Toronto Normal School, Minister Ross says, concerning her work: "She has

been quite successful in organizing our kindergarten, and has impressed very favorably every person with whom she came in contact. Her lectures on 'Kindergarten Methods in the Normal School' were highly appreciated. Her earnestness of manner, and her thoroughness in all the details of kindergarten work could not fail to lead to better methods of instruction in our public schools, particularly in primary work."

— The National W. T. C. U. has established a Kindergarten Department under the presidency of Mrs. E. G. Greene, of Santa Cruz, Cal. The chief object of the department is to unite all members of the W. C. T. U. in the study of Froebel's educational principles in order to enable them to aid efficiently in the promulgation of these principles in the home, kindergarten, and school, "believing it to be a necessary part of the education of all women, and a duty that the women of this generation ought to assume." In her excellent initial circular on the subject, Mrs. Greene urges the formation of classes in local unions for this study, and advises active sympathy in the establishment of kindergartens in public schools, in churches, as charity-work, and by private enterprise, the circulation of suitable literature and the arrangement of lectures. Persons interested should help this excellent movement by addressing Mrs. E. G. Greene, Santa Cruz, Cal., for circular.

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FACTS.

WORDS.

Chime of bells ; *chimb* of a cask.
Cion is now preferred to *scion* by proof readers.
Agriculturist is now preferred to *agriculturalist*.— *Benj. Drew*.
Apprise, to inform ; *appraise*, to set a value upon an estate.
Ascendant, from whom we descended ; *ascendent*, superior.
Butt, the larger or blunt end, but in the compound it is *but-end*.
Accessory, arts, as the accessories of a picture ; *accessory*, law, as accessory before the fact.
Caster is one of the vials, while the stand or frame used on the table is *casters* ; and *castor* is a hat, also a variety of oil.

Lobbying is addressing or soliciting members of a legislature with a view to influencing their votes.

Ensure is to make sure, certain, safe ; *insure*, is to contract, for a consideration, to secure against loss.

Enure is "to serve to the use or benefit of," as, a gift of land enures to the benefit of the grantee ; *inure* is to accustom, as, a man inures his body to heat and cold.— *Drew*.

Conceive, *deceive*, *receive*, etc., have *ei*, and this is true of every such word whose derivative noun ends in *tion*, as conception, deception, reception. When the noun does not so end, as belief, the verb is *ie*, as *believe*.

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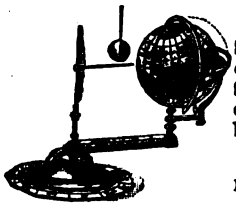
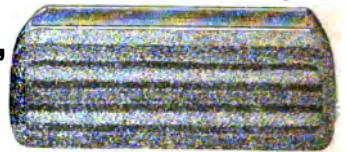
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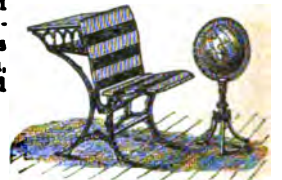
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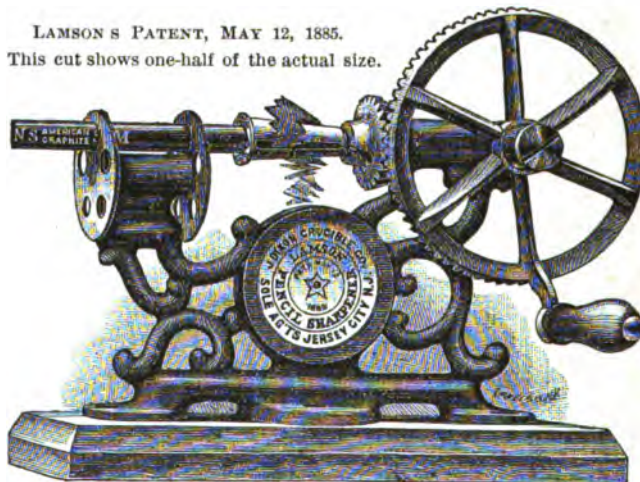
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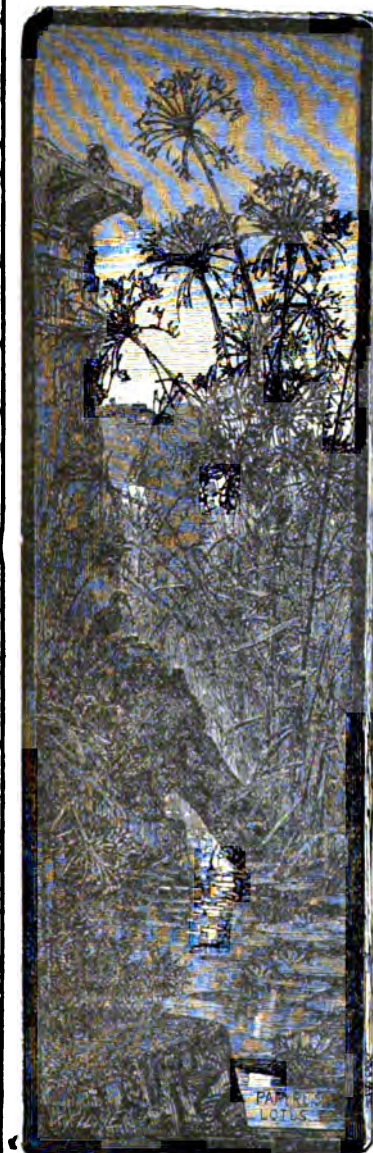
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BOSTON, JUNE, 1886.

EDITORS: { A. E. WINSHIP,
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EDITORIAL NOTES.

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WE learn, as we go to press, that about a thousand copies of the May number were delayed in the mailing. It may have occurred before, but we have not discovered it. Our subscribers will oblige us greatly by notifying us promptly, if at any time THE TEACHER is not on hand.

WE must continue to magnify the work of the primary school. So much has been said and written upon this subject that we incline to think, sometimes, that everybody is going wild on the subject, when, as a matter-of-fact, there are thousands upon thousands of towns in America that have as yet no just conception of the importance of laying a philosophical foundation.

ADIEU, readers of the AMERICAN TEACHER, until the September number, which we shall hope to freight with the best things ever issued for the pleasure and delight of primary teachers and teachers of the country school. We wish you much joy in your days of rest and recreation. The rule has always been to suspend publication in vacation because teachers do not appreciate a professional periodical when they are trying to escape all reminders of the school-room.

TEACHERS who have had no advantages of special preparation, who have for any reason entered the school-room without studying the science or art of teaching, have rare privileges offered them this season in every section of the country, through the summer schools for studying methods

and principles of teaching. We will send a list of the best of them to any teacher who will write us therefor.

Be careful how you introduce anything new. By this we do not mean that you should not introduce many new things, but that in so doing you should be careful not to herald the change in a way to give the impression that you have been mistaken in the past. Such a method undermines the faith of the school in the teacher's wisdom. It is too great a price to pay for a new method.

Do not fear the cry of conservatism. There is little danger from it at present. The trend of public thought is so completely toward change that, except in retired districts and with a few minds, there is little liability of serious opposition to reform. It is better for the teacher to "go slow," at least to such an extent as to be sure that she makes no mistakes. She can easily demoralize the school by frequency of change.

YOUR manner is one of the most important elements of your influence. It is not an easy thing to balance one's manner toward pupils, associate teachers, superiors, assistants, parents, and committees in such a way as to produce the best effect upon all. Study to have your manner as natural as possible,—so sincere, cordial, dignified, and expressive as to represent yourself to best advantage, accomplishing at the same time the greatest good for all with whom you are concerned.

THE teacher must be cordial, warm-hearted, sympathetic. It is essential to the best intellectual activity. The teacher can secure a species of intellectual athletics, of military mental evolutions, by issuing cold-blooded orders; but that activity of observation, memory, imagination, and reasoning which stimulates and assimilates the emotional and volitional life needs the personality of sympathy. Flowers retain their brilliancy, but lose their fragrance, in an ice-chest.

WE must wage eternal warfare against low salaries in country towns. Five, or even seven, dollars a week, is too ridiculously low to be respectable; and yet it costs many towns more, relatively, to pay that than it does for some cities and towns to pay seventeen. The States must help in this matter. Massachusetts is the tardiest of the tardy, New Hampshire alone competing with her in State neglect. There must be some State tax as a relief to the poorer towns. Better salaries in small towns must be paid.

"FACTS" are a valuable department of THE TEACHER, and much will be made of them next year.—Miss Jennie M. Arms' Observations on Animals are an attractive feature this month.—Miss Evelyn S. Foster says a good word for the over-worked teacher.—"Bird Talks" by "M. E. C." is the first of a series of invaluable articles. The author is a keen observer, a good student, a discriminating teacher, and has an effective way of writing what

she knows.—Miss Anna B. Badlam knows how to put a school exercise in type as well as any writer we have at command.—All our contributors appear at their best this month.

NAPOLEON said, "Imagination rules the world," and a study of biography, an intimate acquaintance with the world's leaders in thought and action, a close study of the human mind in young or old, in the humble or the exalted, reveals how clearly the world's most brilliant historic military character understood the influence of that activity of mind which take parts of conceptions and combines them into new forms and images "more select, more striking, more delightful, or more terrible than those of ordinary nature." The child becomes in a large measure what his imagination inspires him to be, and the teacher who holds the lines of intellectual activity has rare opportunities of directing, toning up and toning down, balancing and intensifying the imagination.

It requires tact to handle a school wisely in the presence of a visitor, especially if he be the committee, or a representative of the Board of Education. It is an art, however, that it pays to cultivate both from principle and policy. It is not only fair to the teacher that the school represent itself honestly, but it is demoralizing to a school not to make a respectable presentation of itself. If a pupil cannot handle what he knows in the presence of one gentleman, the chances are that he will be less efficient in the presence of the outside world. There is danger that the school will do its work in such a school-room manner that their knowledge and discipline will be of little avail anywhere outside the school-room, and any interruptions that tend to link the school exercises to the world at large are valuable.

"THE greatest possible injury is done to our schools when incompetent teachers get permanent places at good salaries," says one of the brightest and best of our exchanges. With the general truth here stated we have no disposition to quarrel, but we do question the wisdom of emphasizing it, simply because we do not believe that is the way to rid the profession of such characters, and because we believe thousands of worthy teachers suffer from such a line of attack. A stupid, ignorant teacher who clings to the profession merely for the money it brings will never be frightened away by any sarcasm. She is prepared to fight to the bitter end for dollars and cents. There are, however, many good teachers who appreciate the fact that they are not perfect who make unimportant mistakes, and when they see any criticism of the honor of disqualified teachers they think it means themselves. A bread-and-butter teacher never takes an educational paper, and all attacks upon such are lost. The teachers who read these journals are not the self-satisfied ones, either, but rather the very ones who are seeking to be better and do better work, and are consequently easily disheartened. Spare them every time.

RELIEFS FOR THE TEACHER.

BY EVELYN S. FOSTER.

An editorial in a recent number of the *Christian Register* gives a word of sympathy to the overworked teacher, and speaks of "the silent teacher-killing going on under our public school system." One often hears it said, that no company of workers looks as tired and worn as a company of teachers. If these sayings are true,—and I fancy many weary teachers feel that they are only too true,—it seems to me needful to begin to look for reliefs for the teacher, as well as for the pupils.

Those engaged in other professions often find it helpful to have some interest outside their regular work, some occupation followed for the joy of it. Ministers and business-men have sometimes found the care of a garden, a relief for a tired brain. It is told of Dickens, that when he began to write, the characters of his novels were always with him; if he went to walk, one of the unfortunate beings of the story on which he was at work would be sure to go with him, tugging upon his arm and heart. He soon found that if he could not, for a time each day, separate himself from his work, his strength would give way. When awakened to his danger, by an effort of will, when he left his study, he shut the door upon all the pathetic beings his fancy had pictured.

It would be well for every teacher, when she locks her school-room door, to leave behind her, for a time at least, her school-room cares, and this outside interest of which I have spoken will help her to do it. I fancy I hear some conscientious teacher say, at this moment: "But I have no time for an outside interest. It wouldn't be right to have one; I ought to give my pupils all my strength."

I wish it were possible for me to assure such teachers that any outside occupation they may choose, if there is anything ennobling or restful in its nature, be it as remote as possible from their school-room work, will still make them better teachers than they would be without it. The more they are themselves, the more they can do for their scholars. An outside interest, that has become a delightful recreation to me, is, making a collection of pictures, studying about them and the artist whose work they represent. Copies of famous pictures, from old and modern artists, can now be obtained for a trifle; so this pleasure is within the reach of every lover of art. I have also found it a relief from my school-room work to follow some course of reading on subjects that I have not been required to teach. The knowledge I have gained in this way, however, I have often been able to use to advantage in my school-room work.

I have an acquaintance who is skillful with her needle, and she finds that it diverts her thoughts from school care to spend a little of her leisure in making garments

for some poor children. One child, who had before been obliged to stay at home when her dress was washed, through this teacher's kindness, was able to go to school all the term.

The recreations that lead the teacher out of doors are probably the most helpful,—giving new strength to the tired body, as well as rest to the tired mind. Those who live in the country, if they have never made a collection of ferns or wild-flowers, will be surprised at the number and variety they can find in their familiar haunts. Those who live near the seashore, and begin to make a collection of sea mosses, will have as great a surprise.

In these days of many magazines and papers, there is an opportunity for those who find enjoyment in writing to make that an outside interest. Many teachers find diversion in music and painting. Fancy work has a large element of usefulness in it, when it can turn a tired mind from the cares that weigh upon it. Teaching produces greater mental than physical weariness, and any innocent hobby that, by changing the current of thought bring rest and pleasure, is not to be derided.

In any out-of-school occupations care must be taken not to continue them until they produce fatigue, otherwise they will be harmful, and they should never engross the time that the teacher ought to give to out-door exercise or to sleep.

Physicians say that bad air is almost as fruitful a source of nervous prostration as overwork. School-room air, in the best ventilated rooms, is never the purest; and for that reason the teacher ought to walk each day, if possible, in the open air. It will also help the teacher to keep her strength and cheerfulness, to remember and act upon Rev. E. E. Hale's wise saying, that sleep is the central duty about which all other duties revolve. For relief in the midst of school cares I will add two directions, given by gentlemen who have devoted much time and thought to the subject of education: "Never do yourself what some pupil can do as well for you." "Stand as little as possible. You will show greater power if you can control and teach your scholars sitting, than if you are obliged to stand."

The work a teacher might do for her school is almost without limit. The limit of her strength is much sooner reached. Since, then, one cannot exhaust the possibilities of school work, it is wise for the teacher to heed the warning of the tired body and mind by taking needful rest, exercise, and recreation; then, although the amount of work she accomplishes may be less than her wish, its quality will more than compensate.

— Born in the purple, born to joy and pleasance,
Thou dost not toil nor spin,
But makest glad and radiant with thy presence
The meadow and the lin.

— *The Flower-de-Luce.*

BIRD-TALKS.—(I.)

[Adapted to needs of Upper Primary and Lower Grammar Grades.]

BY M. E. C.

Discovering that botany lessons were not received with as much enthusiasm by the boys as by the girls of my school, I determined to introduce,—for the especial pleasure of the boys,—bird-talks; and having had sufficient success to warrant preparing a set of short notes, it seems to me that it may not be amiss to share them with my fellow school-workers.

It has been my plan to alternate the bird lessons with those on flowers; therefore, every other morning, I inquire if any child has discovered the return of any new bird to our fields or woods. Upon the blackboard we keep a list of those already returned; and, as a new name is added, I tell the class something of the appearance, habits, nests, and eggs of the new arrival.

Later in the day a little account of the morning's talk is copied into the "gem books." In this way the children are not only getting an extra written language lesson, but are preparing a little book, the contents of which will, I think, be a source of pleasure and of gain to them for some time to come.

Such work creates a lively interest in bird-life, and affords a fine opportunity of teaching habits of kindness to our feathered friends. I find that observation among my young people is pretty acute, and they are learning to give fair accounts of what they have noticed. If one is able to draw, it is a wonderful help to illustrate these lessons, and heightens the interest, of course. Prang's cards are also very helpful; and in large cities stuffed specimens may be hired for a small sum. A collection of eggs and nests also give added interest to the talks.

BLUE-BIRD.—We notice the bluebird's return early in March. He has azure-blue back, tail, and wings; the lower part of the body being of a reddish brown. There are also upon his body markings of black and white.

Nest.—It is built in April, in a hole in an old fence-post, pear or apple tree. Sometimes a martin-box in our door-yard is chosen for the home, and sometimes the last year's building-place of a woodpecker. The nest is lined, usually, with soft grasses, feathers, and wool.

Eggs.—They are of a light blue,—slightly greenish—color, and number four or five to a nest.

He remains with us as late as October.

ROBIN REDBREAST.—Many robins remain with us, in very sheltered places, throughout the winter. Those which spend the cold season at the south return to the north early in March. He is olive-brown colored above, and reddish below. He bears, also, some white markings.

Nest.—About the middle of April the nest is built

in trees about our homes or orchards. It is roundish, and formed of an outside layer of straw and weeds, plastered together with mud. The inside is made soft with mosses and grasses. Robin Redbreast will carefully gather from about the door-yard bits of string, or soft cloth, if we but leave them there for him.

Eggs.—Usually four, of a pretty blue,—“robins' egg blue,”—color.

The robin's food consists principally of insects, which abound in the orchards.

LESSON ON KINDNESS TO ANIMALS.

BY GEORGE T. ANGELL.

Ring the bells of mercy,	Filling souls with pity
Ring them loud and clear,	For the dumb and weak,
Let their music linger	Telling all the voiceless
Softly on the ear.	We for them will speak.

—Emily B. Lord.

Think before you strike any creature that cannot speak.

I remember reading in my boyhood about a merchant traveling on horseback, accompanied by his dog. He dismounted for some purpose, and accidentally dropped his package of money. The dog saw it. The merchant did not. The dog barked to stop him, and as he rode farther, bounded in front of the horse and barked louder and louder. The merchant thought he had gone mad, drew a pistol from his holster and shot him. The wounded dog crawled back to the package, and when the merchant discovered his loss and rode back, he found his dying dog lying there faithfully guarding the treasure.

The following little story, told by a friend of mine, is not so painful, but adds force to the thought: *Think before you strike any creature that cannot speak.*

“When I was a boy, and lived up in the mountains of New Hampshire, I worked for a farmer, and was given a span of horses to plough with, one of which was a four-year-old colt. The colt, after walking a few steps, would lie down in the furrow. The farmer was provoked, and told me to sit on the colt's head to keep him from rising while he whipped him, ‘to break him of that notion,’ as he said. But just then a neighbor came by. He said, ‘there's something wrong here; let him get up, and let us examine.’ He patted the colt, looked at his harness, and then said, ‘Look at this collar; it is so long and narrow, and carries the harness so high, that when he begins to pull it slips back and chokes him so he can't breathe.’ And so it was, and but for that neighbor we should have whipped as kind a creature as we had on the farm because he laid down when he couldn't breathe.”

It was only the other day I heard of a valuable St. Bernard dog being shot because, having a wound on his head, concealed by the hair, he bit a person who handled him roughly.

Boys, young and old, please remember that these creatures are dumb. They may be hungry, or thirsty, or cold, or faint, or sick, or bruised, and cannot tell you.

Think before you strike any creature that cannot speak.

SOME QUESTIONS.

[Others to be added by teacher.]

What can you tell about the merchant and his dog?

What can you tell about the colt that laid down?

What can you tell about the St. Bernard dog?

What are you asked to remember?

HOW TO TEACH GEOGRAPHY.

The most common errors made in teaching geography are,—

1. Attempting to teach too many facts (details).
2. Failure to train the intellect properly; burdening the mind with disconnected facts, unfamiliar knowledge.
3. Losing sight of the great purpose of all teaching, *all* school work, to interest your pupils in the study of nature, the world in which we live, its beauties and resources.

Real knowledge does not consist in storing away a multitude of *detached* facts, but in effecting such an arrangement of them that they can be readily reached and employed when required. No teaching can be considered *SCIENTIFIC*, that lacks system, perspicuity, and logical sequence, and that does not aim to relieve the memory of unnecessary effort, as well as secure a clear comprehension of the principal *TRUTHS* through certain principles, a careful study of which supplies a full explanation of detailed facts, by the application of these principles. Geography, as generally taught in our schools, is dull to the boy, and useless to the man. It should be presented to the learner as a *SCIENCE*, rather than an assemblage of disconnected facts.

The natural features of the earth, the atmospherical phenomena, and the animal and vegetable life, should be treated as *parts* of a grand mechanism, with *definite* offices to perform. The study of the divisions of water, mountains as regulators of rain-fall, geographical positions and climate as determining the products and industries of the earth, should be made with reference to the effects upon trade and commerce, domestic and foreign.

All legitimate interest begins with "home." "The world we live in;" "We and our neighbors;" "The way we live, and what we do now;"—these are the captions which should head a natural system of Geography.

Beginning thus, education would leave the pupils fitted to learn from the last and greatest teacher, Life,—not mere existence, nor personal observation, simply, but the observation and experience of thousands, brought together and laid before us by Life's most active educators.—*Selected.*

PRIMARY LESSONS IN BOTANY.—(VII.)

BY MRS. FANNY D. BERGEN, PEABODY, MASS.

THE PARTS OF THE FLOWER.*

"What have I given to each of your children from the heaps of flowers you have been kind enough to bring to my desk this May morning?"

"Some apple-blossoms!"

"I also have one in my hand, you see. Now let us find out all we can about the various parts that make up this pretty pink and white blossom. Each year you have lived you have seen the buds on the apple-trees swell in the gentle spring rain and warm sun, and at last burst out into full bloom; have smelled the sweet fragrance, seen the apples growing, that come after the flowers; and yet I think you will this morning see some new and interesting things about this common flower. One little girl asked me, before school opened, if it were not wicked to gather so many of these blossoms, as each one, if left on the tree, would have grown into an apple before September. This was a very nice, kind thought; but Nature is so generous in all she does, children, that she has her plants bear a great many more flowers than could possibly mature into seed or fruit. In this way Nature provides for accidents. So we need not hesitate to take as many of the abundant apple-blossoms as we like, to study. I should not idly pluck them, or any flowers, because unless gathered for some purpose, they had, it seems to me, better be allowed to end their little lives uninterrupted. Before we talk over the parts of the flower, can you tell me what is the use of the apple-blossom?"

"To make apples grow."

"Yes; and in the middle of a ripe apple what do we always find?"

"Seeds."

"Yes, the seeds; and from these seeds, if planted in the earth, will grow little apple-trees. Then you must remember that the real use or work of the flower of any plant is to bear seeds.

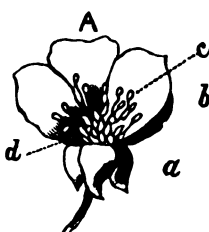


Fig. 1.—A Complete Flower.

Now, turning your apple-blossom upside down, what do you first see? A little hard, berry-like thing at the top of the stem, do you not? And this ends, you see, in five small, leaf-like parts, which act as a tiny bouquet-holder for the flower. This outside part of the flower is called the *calyx*. What is it called?"

"Calyx." (See fig. 1, *a*.)

"That is right. I will write it on the board, and you must write it on your slates after recitation. And these

* The present lesson ought naturally to have preceded Lesson IV., but it seemed best to insert the latter (which dealt with the subject of fruits) at that point, since it was more appropriate for the time of publication.

little divisions of the calyx are called sepals. In some flowers the sepals are not divided, as in the apple-blossom, but grow together nearly all the way, or sometimes quite up to their points. You see the calyx of this flower is not pure green, but is of a greenish white. What gives it the whitish color? I hear some one say, 'There is fine wool growing on the green.' Yes, there is a sort of down, which you can see much better at recess by coming to the desk and looking at the calyx through the magnifying-glass. What do we find just within the calyx, children? You do not tell me; but I see ever so many little fingers touching the five pinkish-white shell-shaped parts, which you often incorrectly

call leaves. You must remember these are called *petals*. The petals of a flower are together called the *corolla*. (See fig. 1, b.)

We will now write these names on the board. If you cannot always remember corolla, I am quite sure you can remember that its separate parts are the petals. In

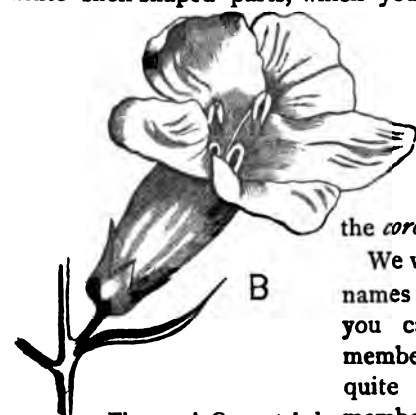


Fig. 2.—A One-petaled Flower.

some flowers these grow together, making what is known as a one petaled flower.

Grown-up people have a long name for such flowers; but I will not bother you with that to-day. Here is a flower which I brought from the green-house.* Do you see, as I pull the petals away, that there is just one piece? But at the top are scallops which show how many separate petals there would be if Nature did not have them grow together, making this little funnel. Can you guess the use of the petals to flowers?"

"To look pretty."

"You have told me that about other beautiful things in flowers, I think; but again I must tell you that there is some real use back of all the show of color which so pleases us. Just why some flowers are so gaily-colored, or others so sweet-smelling, we will talk about in another lesson. Now look inside the petals, and what do you see?"

"Little yellow things."

"Yes; and if you look closely you will see a number of tiny greenish stalks, each one bearing at its top a little yellow ball. See, when I strike my blossoms against this pane of glass, what is left on the glass?"

* The larger and more decidedly monopetalous the flower, the better. Trumpet honeysuckle is good, or Gloxinia. Some regularly-lobed flower is best for these beginners in botany. If no monopetalous flower can easily be obtained, the children will doubtless be familiar with the morning-glory, and judicious questions may lead them distinctly to recall its form.

"Yellow dust."

"That is right. In some flowers this dust is not yellow. If you smell a tiger-lily, what will you be apt to get on your nose? Brown dust, will you not? These little people with the yellow heads are called *stamens* (see fig. 1, c), and the powder or dust is called *pollen*. Now look down in the midst of the stamens and you will see something else. What is it, Elsie?"

"Five little things standing up together."

"Yes; and if you were to examine these small stalks which do not have the yellow tops, with a microscope, you would find that they are joined together at the bottom. This part of a flower is called the *pistil*. (See fig. 1, d). Some flowers have a pistil with just one stalk, while others, like the apple, have what you may call a *compound* pistil, because it is made of several parts, more or less, joined together. You learned what 'compound' means when we were studying about leaves. Now if we were to split each of these parts of the pistil carefully from top to bottom, on looking at them through a magnifying-glass we should find a little cell at the bottom of each. So that the whole lower part of this compound pistil is like a tiny house with five rooms of just the same size. And in each little cell or room are two very, very little objects which, by and by, will grow and ripen into seeds. See, as I cut this apple crosswise: do we not find the five seed-cells? So here in this ripe apple we have the lower part of the pistil and the lower part of the calyx of an apple-blossom of last year, but greatly enlarged, for they grew all the long summer through. Can you guess what these are (touching the persistent calyx teeth on the under side of the apple)? Turn again to your apple-blossom. Suppose the cup-like part of the calyx were to grow and grow until it came to be as large as the apple we have just been looking at, but the separate sepals were not to grow? Ah! I see your faces brightening, and some of you already guess, maybe, that the dried-up little leaf-like points on the part of a ripe apple opposite the stems are the sepals. One thing more we must learn from our apple-blossom. The stamen-dust or pollen has a use of its own. Unless some of this were to fall on top of the pistil or pistils the baby-seeds growing down in their little rooms would never come to be ripe seeds, that would grow and make new plants. When any of the pollen chances to fall upon the pistil, for some reason, which no one, however wise, can tell us, a sort of thread so fine you can scarcely imagine it, grow out of each little grain of pollen and creeps down through the pistil-stalk to where the young seeds are, and in some way makes them able to become perfect seeds. If you ask me how and why, I must tell you I do not know how all this can come about. It is one of Nature's secrets. But one strange thing people have found out; and that is that the pollen-dust from the stamens of any flower does not answer well on the pistil of that very

flower,* but pollen from another flower is better ; and the best of all is that which even comes from another tree or plant of the same kind. Now how is the pollen from one flower to get to the pistils of other flowers, even to flowers growing on separate plants? The small grains of pollen have no feet with which to walk and no wings with which to fly, and yet they do travel about just as is necessary in order to make seeds which will produce new plants. You may try to discover how this comes to pass, and in other lessons we will talk about it. I think you will say it is as interesting as a fairy tale."

* Before entering upon the subject of the fertilization of flowers, the children should learn something of incomplete and imperfect flowers, as well as of dioecious and monoecious ones. Use simple terms when possible, and encourage the children to collect flowers to study in class from day to day.

PRIMARY READING.

BY MARY L. CLIFFORD.

Suggestions as to Methods and Means.

The synthesis of words should be taken up as soon as pupils know enough sounds for building new words. There must be an understanding between teacher and pupil as to the marking of sounds and the manner of indicating silent letters. Letters may be marked only for the most uncommon sounds, and crossed out or printed lightly to indicate that they are not sounded. A constant drill in sounding should be kept up during the year as a means of discovering new words, and should not be slighted when the work of spelling by letters is begun. It is generally better to leave the spelling by letters till the pupils have made considerable progress in reading, and when begun it should be made very simple by using only words containing no silent letters. Throughout all the year, pupils will gain a good deal in the way of spelling by the copying of words and sentences from their reading-lessons as quiet work after lessons. The names of the written letters are being learned in writing-lessons all this time, and should be reviewed in their work in language and reading. Most pupils can copy simple words, their names, etc., fairly well, even though they may not know the names of all the letters or be able to spell them correctly by naming the letters in the right order.

While most of the work in reading is from the blackboard, and the pupils are not yet ready for *real* book-reading, it serves as a good discipline and a help in future work, if the teacher sometimes select stories containing some new words, gives the pupils books, and reads sentence by sentence for the children to repeat while looking at the words. The pupils enjoy this work. It is a help to them in learning to keep their places, and they gain a good deal in the way of expression and rapid reading by sentences.

Children learn to read with correct expression by imitating others, as they learn many other things. No harm to the pupil can come from this unless it be carried to excess, and the pupil thus come to depend upon the teacher or other pupils for correct expression rather than upon himself. Pupils must be taught to read as they talk, if they talk correctly. We often have to teach them to talk and to read correctly at the same time, and repetition and concert reading often encourage pupils who are a little backward who are likely to hesitate when attempting the reading of a hard sentence.

When books are first used by the class it is better to teach the new words of the lesson from the blackboard, and it is well to print or write difficult sentences occasionally. If pupils are carefully taught during the year, at its close they should be able to read readily any of the first readers in common use. If possible the pupils should become familiar with several first readers ; their knowledge of words is thereby increased, and they gain greater power to read well because their reading-lessons are not likely to become tiresome or monotonous on account of repetition. It is much better to require pupils to read the same words combined in different ways or sentences than to dwell on one sentence or story until pupils know it by heart, for the purpose of testing the pupil's knowledge of words. There should be more reading-matter put into the school-room. Children have reason to complain when the teacher *puts them back* to the first part of the book. It is possible to cultivate in the child of six or seven years a taste for reading as a means of acquiring information and a taste for good literature.

SKELETON LESSONS IN PHYSIOLOGY AND HYGIENE.—(VIII.)

BY ALICE M. GUERNSEY.

"General review,"—always a familiar term in the mental note books of teachers,—becomes of special importance in the last days of the school year. Yielding to the spirit of the hour, this "closing lesson" may well be a running comment on those which have preceded. What are the points that should be made especially emphatic? What weapons need to be bur-nished and sharpened, that the children may find them ready for instant use in the hand-to-hand conflict in which many of them must engage?

The following points, at least, should have been made clear by the year's work :

1. Value of the nervous system.
 - a. By it we see, hear, feel, etc.
 - b. Its injury impairs the bodily or mental powers, or both.
2. Alcohol is an enemy of the nervous system.
 - a. We need quiet, natural sleep.
 - b. Sleep caused by narcotics is not brain-rest.

- c. Alcohol deadens the nerves, and is a poison.
- d. Cider, beer, wine, brandy, whiskey, etc., contain this poisonous alcohol.
3. Tobacco deadens the nerves.
 - a. Boys and girls who use it cannot grow into well-formed, healthy men and women.
 - b. The "rest" which it gives is not real brain-rest.
4. Opium deadens the nerves.
 - a. As with alcohol and tobacco, its user becomes a slave to the drug.
 - b. Soothing-syrup contains opium.
5. Cumulative power of all narcotics.
6. Care of the digestive organs.
 - a. Proper food and methods of eating.
 - b. Effects of tobacco on the teeth and the saliva.
 - c. Effects of alcohol on the stomach.
7. Care of the respiratory organs.
 - a. Necessity of pure air, by night as well as by day.
 - b. How to obtain pure air.
 - c. Evils of tight lacing and round shoulders.
 - d. Injury done the lungs by smoking.
8. Hygiene of the heart and blood-vessels.
 - a. The beating of the heart is controlled by nerves.
 - b. Alcohol and tobacco put the ends of these nerves to sleep.
 - c. Then the heart beats too fast, and is over-worked.
 - d. The red face of the drinking man or woman is a "danger signal."
 - e. The fat made by liquors in the heart, and other muscles, is worse than useless to the body.

Use simple review questions, after the plan of the slate-work, to test the accuracy of the pupils' knowledge. "Choose sides" and have an answering match, never forgetting to send a special invitation to parents for such exercises, since we need to impress them with these truths.

And now, dear fellow-teachers, at the close of this series of informal talks, suffer a word of personal exhortation. The teaching of the principles of total abstinence, as based upon the truths of physiology and hygiene, is an established fact in the land to-day. State after State is giving us this duty by legislative enactment. But the responsibility rests upon us by even a higher law; for, to you and me comes a solemn word sounding down through the ages, louder than the clamor of voices now swelling angrily around us, "Be not overcome of evil, but overcome evil with good."

In spite of opposition and indifference, we hold the key to the situation. It is in our hands to implant in the minds of the youngest children such a hatred of narcotic poisons as shall influence for good all of their future lives. Will we do it? Will we be faithful to this mighty trust, now recognized as ours by the true heart of the nation?

We think sometimes, in weary, lonely hours, that our work and ourselves are unappreciated; that few care for us, save as for so many machines by means of which their children, without trouble to parents, shall be trained "in the way they should go." But, whatever may have been in the past, to-day the great heart and brain of American motherhood comes to us with pleading voice and tearful eyes, saying, "You can help us, as no other can, to save our boys and girls. Will you not, for His sake who died to save, clasp hands with us in this mighty effort? We know your hearts and hands are full without this added burden. So are ours. But when God calls, He always opens the way for willing feet. 'Sharing one another's burdens,' we can, together, do valiantly 'for God and home and humanity.'"

Ah, teacher-friends, will it be nothing to hear, as we lean, perchance, over the battlements of heaven, the shout of our boys and girls: "We are coming! Huzza! huzza! The bright hope of the morning in our faces; the vigor of a temperate youth in our bodies; the strength of a pure life in our brains;—America's hope, America's salvation!"

REVIEW QUESTIONS.

1. What part of you thinks?
2. Where is your brain?
3. What carry messages between your brain and other parts of your body?
4. What do the nerves look like?
5. When your finger is "asleep," what is the matter?
6. Does such sleep rest you?
7. What is alcohol?
8. What does it do to the nerves and brain of one who drinks it?
9. What drinks contain alcohol?
10. Is it safe to take a little whiskey, or cider, or beer?
11. Why not?
12. What is tobacco?
13. How do people use it?
14. What does tobacco do to the nerves?
15. How does it injure boys and girls?
16. What harm do cigarettes do?
17. What is opium made from?
18. What does it do to the brain and nerves?
19. Why not give soothing-syrup to babies?
20. What makes the pulse in your wrists?
21. What keeps the blood moving there?
22. What kind of work will your brain and nerves do if you poison them?
23. Where does your food go from your mouth?
24. How should you chew your food?
25. What happens if you eat too fast?
26. Why should you not eat between meals?
27. What does tobacco do to the teeth?
28. To the saliva?
29. What do you think of the habit of spitting?
30. What does the stomach do with alcohol?
31. How does alcohol hurt the stomach?
32. What do you breathe into your lungs?
33. What kind of air comes from your lungs?
34. Why should you never stay in a close room?
35. What makes your head ache, if there is no chance for fresh air to come into the room?

36. What does the smoke of cigarettes do to the lungs?
37. Where is your heart?
38. What would happen if it should stop beating?
39. What comes from the heart?
40. Of what use is the blood?
41. When the nerve-ends are put to sleep, how does the heart beat?
42. How does the blood move in the tiny tubes?
43. How does a drinking man's face look?
44. What is very likely to happen if a man begins to drink liquor?
45. What does alcohol do to the muscles?
46. What does a "fatty heart" often do?
47. How does tobacco affect the heart?
48. Do you think that liquors and tobacco are good for people?
49. Why?
50. What do you mean to do about using them?

PICTURE-READING.

BY ANNA B. BADLAM.

In addition to the regular work in language we have some interesting lessons in what the children term *picture-reading*. We have cut up several toy picture-books, and mounted the different illustrations upon manilla paper, forming a chart, in this way, that is always ready at a minute's notice for a language-lesson.

Just before the April vacation we turned to a picture of a little girl feeding a pet fawn, with the following result, as an impromptu language-lesson.

NOTE.—The teacher should sketch this picture on the black-board with the crayon.

Teacher.—Tell me what you would notice first in the picture.

Child.—I should notice the little girl.

T.—Who would notice any other object?

C.—I should notice the fawn first of all.

C.—I think I should notice that log.

T.—What other objects do you see in the picture besides the *girl*, the *fawn*, the *log*? (writing the words as a heading to separate columns on the board).

C.—The little girl's hat.

C.—The sky.

C.—The tree.

C.—The grass.

T.—Let us see what we have found to talk about:

The girl.	The fawn.	The log.
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The hat.	The sky.	The tree.	The grass.
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Tell me something about the little girl.

C.—She has golden hair.

T.—What kind of a haired child is she then?

C.—Golden-haired.

T.—What else can you tell me about her?

C.—She is pretty.

C.—She is kind-hearted.

T.—Why do you think so?

C.—Because she is kind to the fawn; she is feeding it with grass.

T.—What shall we say about the fawn?

C.—It is tame.

C.—It is a pet.

C.—It is brown.

T.—Some one said the fawn was tame; suppose you or I should try to feed a little fawn: what would it do?

C.—It would run away.

T.—Why?

C.—It would be afraid of you.

C.—It would be shy.

C.—It wouldn't know you. This fawn knows the little girl.

T.—We will talk about the log now.

C.—It is a very large log.

C.—It is very long.

C.—It is nice to sit upon.

C.—It is old.

T.—Why do you think so?

C.—Why, I see moss on it.

T.—What kind of a log will you call it?

C.—An old mossy log.

T.—What do you think it was once?

C.—Once it was the trunk of a tree; but some one cut it down.

T.—Has any one anything more to say about the log?

C.—I think it must be a heavy log.

T.—Now we want to talk about the little girl's hat.

C.—It is a straw hat.

C.—It is a summer hat.

C.—It is lying on the ground.

C.—It is a very large hat.

C.—The little girl took it off, so she could feed the fawn better. The hat is a shade hat.

C.—The hat is trimmed with flowers.

C.—The little girl has decked the hat with flowers to make it look pretty.

C.—I think is why she took off her hat.

T.—What about the sky?

C.—The sky is blue.

C.—You can see a little bit of white.

T.—What will you call it?

C.—A little white cloud.

T.—Yes; it reminds me of the fleece on the lamb's back. What kind of a cloud could we call it?

C.—A fleecy cloud.

C.—The sky is clear, with only one fleecy little cloud.

T.—Something more about the sky. What makes this room so pleasant this morning?

C.—The sun shines.

T.—What will you say about the room?

C.—It is sunny.

T.—Look at the real sky; look at the sky in the picture.

C.—The real sky is sunny, and the sky in the picture looks sunny.

C.—The sky is sunny.

T.—We will look at the tree.

C.—It is a tall tree.

C.—It is a large tree.

C.—It has a great many leaves.

C.—The leaves are pretty.

C.—It is a nice, shady tree.

T.—Some one spoke of the leaves. Do you know what we call the leaves when we think of them all? We speak of the foliage. What shall we say about the foliage of this tree?

C.—Pretty.

T.—No; a word that means even *more* than pretty.

C.—Beautiful.

T.—Yes; beautiful foliage. We have not said anything about the grass."

C.—The grass is very green.

C.—There are flowers growing in it.

T.—Look where the little girl is kneeling.

C.—The grass is short.

C.—Over by the log, close up against it, it is tall.

T.—Why is it tall in some places and short in others?

C.—Because no one walks close up to the log, and the grass has a chance to grow.

C.—Yes; and it gets trodden down where people walk.

T.—What do you call the place through the grass where people walk?

C.—The path.

T.—How many ever saw the signs on the Common, "Keep off the grass"?

Children.—I have; and I; and I.

T.—Where should we walk?

Children.—In the path.

T.—Why?

C.—Because the grass gets trodden down wherever we walk.

T.—Do you like to see the grass?

Children.—Yes'm.

T.—Why?

C.—It looks pretty.

C.—It looks cool.

T.—Yes; and it rests our eyes to look at it; so we must be careful to walk only where we need to walk, and not trample down the grass. After the long, cold winter, and the little blades of grass begin to peep out from under the snow, we begin to think spring has come, and enjoy the grass almost as much as we shall the flowers by and by. There is another thing about the

grass; it will grow almost anywhere where it can find a little spot in which to grow. Hear "The Song of the Grass":

"Here I come, creeping, creeping everywhere;
By the dusty roadside,
On the sunny hillside.
Close by the noisy brook,
In every shady nook,
I come creeping, creeping everywhere.

"Here I come, creeping, creeping everywhere
More welcome than the flowers
In summer's pleasant hours;
The gentle cow is glad,
And the merry bird not sad,
To see me creeping, creeping everywhere.

"Here I come, creeping, creeping everywhere;
My humble song of praise
Most joyfully I raise
To Him at whose command
I beautify the land,
Creeping, silently creeping, everywhere."

—Sarah Roberts.

OBSERVATION LESSONS ON ANIMALS.

TEACHER'S NOTES AND CHILDREN'S WORK.

BY JENNIE M. ARMS.

II.—THE SEA-ANEMONE.

SPECIMENS AND APPARATUS for a class of fifty children: One or more living sea-anemones.

(These can usually be obtained by sending to Beverly and other sea-coast towns. When packed in moist sea-weed they reach their destination in good condition, and if they are then placed in pure sea-water they can be kept alive for weeks in a cold place. Teachers living inland will find a Blaschka model a convenient substitute. This can be bought of Prof. Henry A. Ward, Natural Science Establishment, Rochester, N. Y. Though made of glass, it will, with care, do duty for years.)

A wooden tube; a rubber ball; a leather sucker; a model showing the internal structure of the anemone.

(This model can be made of red press-board of any size desired. When thirty-two inches in circumference, six pairs of long, and six pairs of short, partitions can be represented. It should be made so that the disc with the tentacle (one is sufficient) and the "stomach" can be taken off, thus giving a view of the body-cavity with its partitions. By cutting cross and vertical sections of an alcoholic specimen of a sea anemone, teachers can, with a little ingenuity, make this model without difficulty. Though several hours are needed for its construction, it is only just to bear in mind that, when once made, it can be used many years, even with very rough handling; and that it will save the teacher all the time and strength required for making the subject clear by means of diagrams.)*

REFERENCE BOOKS: *Guide for Science-Teaching*, No. IV.; Mrs. Agassiz. *Guide for Science-Teaching*, No. V.; Hyatt. *Corals and Coral Islands*; Dana. *Atlas of the Report on Zoöphytes*; Dana.

OUTLINE OF LESSONS ON THE ANEMONE.

LESSON I.

Homes of sea-anemones.—Children tell where they have found anemones; point out homes on map; are anemones salt or fresh water animals? *Colors*—varied

* It is our experience, that, when specimens cannot be used, models are far more satisfactory than diagrams for pupils under fourteen.

and beautiful [consult Atlas of the *Report on Zoöphytes*]; most common shades, brown and orange. Animal resembles a flower, hence its name.

Shape of body—long, round; round like a ball or round like a tube? [Show ball and tube.] *Two ends of tube-like body different; upper end a disc.* In the middle of the disc a mouth; mouth surrounded by feelers or tentacles; larger tentacles near mouth, smaller tentacles near edge of disc. Work of tentacles. One child drops bits of raw meat on tentacles; they slowly carry food to mouth.* Thread cells; illustrate by blackboard drawing [see *Guide*, No. IV., p. 11; *Guide*, No. V., fig. 19]; thread cells used for poisoning and killing animals.

Lower end of tube-like body the base; anemone attached by the base to rocks, shells, piles of bridges, etc.; how attached? [Ask a boy to make a leather sucker, and illustrate at the next lesson how the anemone is fastened by suction.] *Motion.*—Anemone usually stationary, yet capable of slow motion; sometimes changes place rapidly; how? [Show picture in *Corals and Coral Islands*, p. 24.] Picture illustrates the mutual good-will and dependence which may exist between very diverse animals,—such as a crab and a sea-anemone. Teacher holds anemone to the light; children see internal walls running from disc to base.

Power of contraction and expansion.—Children touch anemone; what happens? The tentacles are drawn in, animal contracts; illustrate by drawing [see *Guide*, No. IV., p. 9, No. 1]. Anemone allowed to remain undisturbed for a time; what happens? The tentacles are put out, animal expands; illustrate [see *Guide*, No. IV., p. 12, No. 5]. Has the anemone a skeleton? The animal feels fleshy, no hard bones; anemone never makes a skeleton.

Eggs and buds.—From what does the sponge grow? From an egg. The sea-anemone grows from an egg, and also by budding. Illustrate process of budding [see *Guide*, No. V., fig. 39]. Children copy the blackboard drawings representing the anemone contracted and expanded; then write a description of the anemone.

Description Written by a Child of Ten.

"The sea-anemone is an animal which has no skeleton. It is like a tube. The hole at the top is its mouth. Around the mouth there are a great many feelers. There are two kinds; the ones near its mouth are longer, and not so delicate as the others. Its base is uneven, and it fastens itself on rocks and stones. When it eats, it takes the food with its feelers, and puts it into its mouth. They are a great many colors,—brown, white, pink, and orange. They multiply by eggs, and sometimes you see a little lump on an anemone; this lump grows bigger, then comes off and finds a rock for itself."

*If the tentacles refuse to work, the teacher can draw upon the children's knowledge. Usually some member of the class has watched anemones in their own beautiful tide-pools, in the summer time, or has read stories about them.

LESSON II.

INTERNAL STRUCTURE OF THE ANEMONE.

By means of the model children give a general description of the internal structure. Mouth leads into a bag or sac;* sac hangs in the middle of the body; sac opens at the bottom into the body-cavity. Body-cavity divided into chambers by partitions; partitions in pairs, long and short. Six pairs of long partitions extend from outer wall to sac; six pairs of shorter partitions extend only two-thirds of the way. Children compare model with a blackboard drawing of a cross section of the anemone made in red chalk, which, like the red press-board of the model, represents flesh. [For drawing, see *Guide*, No. IV., p. 12, No. 7.] The drawing shows twelve pairs of walls extending half-way to the sac, and twenty-four still shorter pairs. Space between each pair of partitions is a chamber; each chamber prolonged into a hollow tentacle.

Food.—Nutritive fluid.—Food, taken in at mouth, passes directly into sac; food changed into nutritive fluid either in sac or below it; rejected matter thrown out at mouth; nutritive fluid circulates through body-cavity into hollow tentacles, and nourishes the animal. Children copy drawing of cross section of the body of the anemone. Afterward, half the class describe the internal structure, and the other half write a summary of the two lessons. As an aid the teacher indicates on the board the order of the observations followed in the lessons.

Summary by a Child of Eleven.

"I have found sea-anemones at Marblehead Neck, and people have found them in other places. They live in salt water. They look like pretty flowers. It has a body like a tube. The upper end is called a disc. In the middle of the disc is a hole, which is the mouth. The mouth has thousands [?] of feelers round it. The feelers carry the food to the mouth. The feelers have queer little threads which poison and kill animals. The lower end is the base. It sticks to rocks by the base. It can move, too. Sometimes the crab is its horse. It can grow big and little. It feels very fleshy, so there are no bones. It makes eggs and buds. The mouth goes right into a sac. The sac hangs in the middle, and at the bottom of it there is a hole. The hole leads into the body-cavity. The body-cavity is divided into rooms by walls. The walls are long and short, and are in twos. The food goes into the sac, then the bad part is thrown out of the mouth, and the good part goes through the body. I kept a sea-anemone last summer, and it was just lovely."

As stated in the last lesson, the work of the children is given without corrections.

* This sac is usually described as the stomach; but recent investigations tend to show that digestion is carried on below rather than in the sac.

— The longest river in the world is the Mississippi, reckoning from the source of the Missouri, being 4300 miles, or equal to the combined length of about thirty-three millions of Esterbrook's mammoth falcon pens and pen-holders.

MISS WEST'S CLASS IN GEOGRAPHY.

BY FRANCES C. SPARHAWK.

XIX.

"I told you that many of the nations of Europe had colonies in other lands," said Miss West. "England is first in this respect. You know that the cities of Quebec and Montreal, which we talked about some time ago, are in Canada, and that Canada and the country north of it belong to England. I told you, also, that English people were in the southern part of Africa; but besides these there are other colonies, among them the largest island in the world,—so large that it is sometimes called a continent, as the other divisions that we have been studying about are. This island, with others near by, is southeast of Asia. How many of you ever heard of Australia? Willie Sullivan had heard the name, but had not known what it meant. Miss West drew the map of the island, with its mountain ranges, which the children defined as running from north to south. Johnny Smart gave it as his opinion that the mountains were fond of running from north to south, but Lily White reminded him of Asia. The teacher spoke of the beautiful climate of southern Australia, but said that the island had one serious disadvantage. "I hope that some of you will be able to tell me what it is," she said. Then she drew the rivers, told the children about their sudden rise in wet seasons, their becoming mere marshes in the dry, and added to this a short explanation of the wet and the dry seasons of the tropics. She told them, also, the long distances on the coast between the rivers, and the barrenness of the interior. "Now, what should you think that Australia needed to make it fertile?" she asked. "You see that it has heat."

"Moisture, water," said Ned Hansom.

"Right, Ned. And now that we know something it wants, I will tell you something that it has which takes a great many people there. It has always been known as a grazing country. What is grazing?"

"Why, pasturing cattle," cried Mary Summers. "My uncle has a grazing farm."

"But," said Miss West, "after a while something besides pasturage was discovered in Australia,—the same thing that I told you was found in California."

"Oh, gold," said Carrie Blunt.

"Yes, gold, and a good deal of it, was found in Australia; and so many people rushed there that towns and cities grew up all at once.

"Is that the way they always do when there is gold around?" inquired Frank Blake. "Would everybody come here to Leslie if I should find some gold in the ground?"

"You would find so many people come to dig and make mines here that you would not recognize your own town."

When the children had learned a little more of Aus-

tralian life and a little of the natives, Miss West said that now she wanted to be taught, and that they were to tell her what they could remember about the things they had learned. Then she asked them questions about climate, which they answered readily. The watersheds they remembered well; and they understood, also, the difference in temperature between the northern and the southern slope of hills. They explained river basins glibly, and lakes were to them as ponds viewed through a magnifying glass. They gave, also, some of the causes of deserts, and of luxuriant vegetation, and upon the whole showed that they had gained a general knowledge of physical geography. They had even made a beginning upon political, but this did not extend much beyond the names of the continents. Yet Miss West found that this little had laid a good foundation for those rudiments of history which she meant should accompany their study of political divisions. They had guessed out the situation of a few cities in Asia, and she had pointed out a few more to them. But in Europe she had not yet attempted this, because the intricacy of mountains and rivers and inland seas had given them enough to do. But now she went back to the continent. She tried to make the children's study like an expedition which one goes upon because he wants to find out what more there is to be known. At first she asked for cities in this division.

Johnny Smart remarked that he knew there must be "lots" in England, but he didn't know where they were.

"What makes you think so?" she asked.

"Because you told us the people that came over here did as they do in England, and we have lots of cities here; and you told us they had them out in Australia, too; and of course they would have them in their own country."

"You are right, Johnny; they do have a great many. Let us see if we can find any of them."

By showing the lines of travel both by land and by the great water routes, Miss West helped out the children's guesses in Great Britain. Then, crossing from Dover to Calais, she showed them the largest cities of France, not often telling them directly the cause of their size, but giving them the facts from which they several times drew conclusions more accurate than she had expected.

"I'd like to see all those big places," cried little Frank Blake.

"It's nice to know about them first," returned Lily White, "for then you won't have to stare so when you go there, and make people think you never saw anything."

"It is well to find out all you can first, Lily," said Miss West. "But don't be afraid of confessing that you don't know things, and of asking about them. It's the only way to learn; and it is often the people who know most who are most ready to ask information."

"Is that because they want to know more?" asked Ned Summers.

"Don't you think I ask questions a good deal, teacher?" inquired Johnny Smart.

TEACHERS' METHODS.

LANGUAGE METHODS.

The various ways by which language is taught through the primary grades are familiar to every live, ambitious teacher. There is reading, first of all; there is oral work,—there is the preliminary analysis of the phraseology of every lesson to make sure that it is perfectly understood; the review and illustration of textbook statements to secure accurate conceptions of the facts involved; the requisition,—to be rigidly adhered to under all circumstances, and in every grade, to the end,—that the answers given by pupils shall be expressed in complete sentences; and a short season of vocal gymnastics to accompany every recitation, to secure clearness and accuracy of enunciation. All these agencies, moreover, to be applied to a greater or less extent in the primary department, are equally indispensable in the grammar department.

Then there are the various forms of profitable written work,—dictation exercises for written reproduction; the similar reproduction of object lessons, stories, class lessons; descriptions of pictures, sights, scenery, journeys, events; the writing of letters; and now and then, attempts at original composition.—H. F. HARRINGTON, *Supt. of Schools, New Bedford, Mass.*

FORM AND DRAWING.

Motive of Primary Instruction in Form and Drawing.

Mental growth to be promoted by sense-training.

Ideas of form to be developed through the senses, from the object to the completely expressed thought of the object.

The hand to be trained in manual skill.

Attention to be secured by the presentation of objects to cultivate:—

1. Perception by sight and touch.
2. Conception or thought,—models and objects to be handled and compared to generate concepts.
3. Expression of thought by

- | | | |
|------------------------------|---|--|
| a Making | { | moulding in clay,
laying sticks,
folding,
laying tablets. |
| b Drawing. | | |
| c Language, oral or written. | | |

Steps from the Concrete to the Abstract.

1. The model and the object.
2. The tablet or derived plane.
3. The stick or embodied edge.
4. The line or representation of the edge.

Building Concepts of the Object.

- | | | | |
|---------|----------------------------------|---|---|
| By 1. { | Seeing.
Handling.
Talking. | { | 2. Making.
3. Drawing.
4. Language. |
|---------|----------------------------------|---|---|

Order of Form Lesson.

1. The model or object. 2. Action. 3. Name.
4. Surface. 5. Face. 6. Edge. 7. Corner.

Pupils study the models by seeing, handling, and talking about them, and make practical application of each topic taught. For topics see syllabus following:

Syllabus of Form Lessons: Topics.

FIRST GRADE.		FIRST GRADE.	
1. Present objects as wholes.	{ a. Action. b. Direction. c. Location.	d. Position.	
2. Name of objects.		a. Name of parts.	{ Apex. Base.
3. Surface—kinds.	{ Plane or flat. Curved.		
4. Face.	{ a. Direc'n. { Left to right. b. Posit'n. { Front to back. { Up and down. { Horizontal. { Vertical. { Oblique.	c. Shape	{ Round, circular. Circle, diameter, semi. Square. { diameter, Oblong { diagonal. { Isosceles. Triangle { Equilateral. { Right-angled Ellipse. Oval.
5. Edge.	{ a. Kinds. { Straight. { Curved. b. Posit'n. { Horizontal. { Vertical. { Oblique. c. Relat'n. { Parallel. { Perpendicu- { lar or right- { angled.		{ Oblique.
6. Corner—Angle.	{ Right. Acute. Obtuse.		

Course of Instruction.

The exercises have been arranged with special reference to the development of thought, and of expressing power flowing from a course of sense-training with tangible objects.—MRS. E. F. DIMOCK, *Supervisor of Drawing, Chicago Public Schools.*

ARITHMETIC WORK.

In teaching addition, I have found this exercise very profitable and interesting. A tap on the bell means slate-work put aside, and class in position.

Then, rapidly, I give sets of numbers, three in a set, to be added, the scholar giving the first correct answer to pass to the right-hand side of the room, and so on, until all have taken places in order. After a little practice, the answers will come quickly, and each child will be eager to be first. Thus: I say, "12, 10, 4," and the "26" comes almost directly.

For older pupils, the work may be made more difficult; for younger ones, simpler; but some of my six and seven-year-old boys and girls can readily answer questions like the model. When all are in line, it is a

good idea to have them count up to one hundred by twos or fives, and then take seats in the same way as they went out ; or, they may march around the room, singing some school song.

For the smaller ones, I have some colored sticks, giving ten to each one. Then, slates and pencils are put on the desks, while I take my place at the board.

"Count out nine sticks. How many are left?"

(Eager hands go up.) "One!"

"That is right. Now, how much is ten less nine?"

(Of course, the answer is again,) "One."

Now, I write on the board: " $10-9=1$." The children copy this on their slates

Again I put the question: "Ten less one is how many?"

Somebody will be sure to see that this answer is nine ; so that is next written under the first: " $10-1=9$."

This exercise is continued, in the same way, right through the numbers 8, 7, 6, and 5.

Those slates on which the work is correctly and neatly done are then marked 100 per cent. ; and the children will all work hard to obtain this mark. This same idea can be carried out in addition, the questions in that case being, "Nine and one are how many?" "One and nine are how many?" etc.

When the children feel dull on account of the weather, or tired with study on a warm day, have them lay aside their books, and repeat the multiplication tables ; and, to freshen that, have them say some of them backward. This will wake them up, and after some well-known song, they are ready to go on with their regular work.

In an ungraded school, where only a small part of the class-work can be oral, interest the children in their written arithmetic by giving a colored check, labelled 100 per cent., to each one who earns that mark in the morning work. When ten of these have been gained, they may be returned to the teacher, and the scholar's name put on the roll of honor ; and for each additional set of tens, an extra can be added to the name. The checks can easily be made, being cut from stiff, bright-colored paper ; and it is quite important to have as many different colors as possible.

Children like to help, and feel that they are useful. I have class collectors, appointing new ones each week ; and the little ones are very careful to be quiet when getting the slates or pencils, as they know their turns will come sooner if they try to do well.

Make your school a wide-awake one. Give some of the older ones a question with a "catch" in it, to solve out of school. And resolve that teacher and scholars shall put forth their best efforts, and improve the talents given to their keeping.

CORA W. FOSTER.

— Principles are as important as methods.

SPELLING.

Facts and Principles.

1. Spelling is recalling, representing and reproducing written or printed words.
2. To spell orally is to describe a word as you see it in your mind, by naming the letters of the word in their proper order.
3. The most direct and practical way to spell a word is to write it.

Methods.

Pupils can not recall words which they do not *know*, hence the first thing to be done is to,—

1. *Teach* the written or printed word. Fix it in the mind of each pupil by,—

- (a) Presenting it over and over again in an educative way and "in a new light" every time.
 - (b) Calling attention to its general form and arrangement of letters.
 - (c) Calling attention to the parts and their relations to one another.
- (1) Pupils often get a better mental picture of a word by copying it than in any other way.
 - (2) All words should be taught objectively, and used at once in sentences. This objective association and use stimulate the mind and help to recall the correct form.

2. Teach spelling in connection with every line of work,—language, writing, geography, and arithmetic.

3. Teach systematically and persistently those words which pupils need to know, and those which they are most likely to fail on. The spelling lessons should consist of words selected, not collected.

Train pupils to image the words to themselves before they try to spell them. *Ill.* : "Think of the word *receive*. What is the fourth letter?" "Recall the word *separate*. What is the fourth letter?" "Can you tell me just how the word *conceive* looks when it is written? Name the last six letters in order," etc.

General Directions.

1. Be sure that pupils know what they know and what they *don't* know.
2. Tell your pupils, when they are in doubt as to how they ought to spell a word: "Draw a straight line where the word should be, and *learn* how to spell it."
3. A word is taught when each pupil has a *clear mental picture* of it.
4. Careful writing leads to correct spelling.
5. Form the habit of spelling correctly when the mind is attending to something else.
6. Were it not true that the good teacher is all the time *developing mental power in the way of apprehending the correct forms of words*, it would be an almost endless work to teach pupils to spell.—I. FREEMAN HALL, *Supt. of Schools, Leominster, Mass.*

SUPPLEMENTARY READING.

THE BEAUTIES OF SUMMER.

The summer! the summer! the exquisite time
Of the red rose's blush and the nightingale's chime;
The chant of the lark, and the boom of the bee,—
The season of brightness, and beauty, and glee!
It is here! it is here! it is lighting again,
With sun-braided smiles, the deep heart of the glen.

It is touching the mountain and tingeing the hill,
And dimpling the face of the low-laughing rill;
It is flooding the forest-trees richly with bloom,
And flinging gold showers in the lap of the broom!

I have heard the lark warble his hymn in the sky,
I have seen the dew-tear in the meek daisy's eye;
I have scented the breath of the fresh opened flowers,
I have plucked a rich garland from bright hawthorn
bowers;

My footsteps have been where the violet sleeps,
And where arches of eglantine hang from the steep.

I have startled the linnet from thickets of shade,
And roused the fleet stag as he basked in the glade;
And my spirit is blithe as a rivulet clear,
For the summer, the golden-crowned summer, is here!

—*Monroe's Readers.*

WHO WOULD BE A BOY AGAIN?

In company one evening, when the song, "Would I were a boy again," was called for, a gray-headed "old boy" discoursed thus:

A boy again! Who would be a boy again, if he could? To have measles, and mumps; to get scolded by older brothers; to stub toes; to do chores; to be made to stand up as the dunce for the amusement of the whole school, and be told how miserable, weak, and stupid you were when you were born, and to have the teacher ask you what would have become of you at that interesting time in life if your parents had not been so patient with and so kind to you; to eat at the second table when company comes; to set out cabbage-plants and thin corn because you are little, and consequently it wouldn't make your back ache so much; to be made to go to school when you don't want to; to lose your marbles; to get hit in the eyes with apples and balls; to cut your finger; to lose your knife; to be called a coward at school if you don't fight; to be punished at home if you do fight; to be made to go to bed when you know you ain't a bit sleepy; to have no fire-crackers on the Fourth of July; to want a piece of bread and butter with honey and get your ears pulled; to be kept from the show when it comes to town and when all other boys go; to have the canker-rash, catechism, stone

bruises; to be called up to kiss old women that visit your mother; to be scolded because you like Maggie Love better than your own sister; to be told of a scorching time little boys will have who tell lies, and are not like George Washington. *Why, who'd be a boy again?*

ANONYMOUS.

SUMMER SONG.

Radiant from thy throne of morn,
Summer, come.
Spring has wreathed the blossomed thorn,
Summer, come.
Come, there's glory on the lea,
Song of insect, bird, and bee,
Earth is calling but for thee;
Summer, come.

Whither would'st thou wing so soon?
Summer, stay.

What tho' fled, each fleeting boon?
Summer, stay.

In thy bright home love was cast;
Link some feeling to the past,
Leave us not to meet the blast;
Summer, stay.

GEORGE F. ROOT.

THE TEETH.

When the mouth is shut, the teeth are not seen; but when it opens, the teeth are of prime importance to the face, to which they add an essential element of admiration or horror, of sympathy or aversion. The finest teeth are not enough to make a man handsome, but bad teeth would spoil the beauty of the Venus of Milo herself. In superior races, we admire teeth which are not too prominent, have no spaces between them, are not too thick, too broad, or too long, and are white or slightly tinged with blue. We think those teeth ugly which project, are crooked, uneven, yellow, or loose. It is repulsive to every one to see a large portion of the gum of the upper jaw when the mouth opens. It is a blot upon beauty to have bad teeth, like a spot on the sun.

ABBY L. ALGER.

THE BOYS AND THE FROGS.

Some boys were once at play near a pond in which a tribe of frogs had made their home. The frogs were soon seen by the boys, who had no more sense than to pelt them with stones. The poor frogs bore this for a time, till at last one of them, more bold than the rest, thus spoke: "Boys! why do you pelt us with stones, when we have done you no harm? This may be *sport* to you; but, let me tell you, it is *death* to us."—*Selected.*

FRIDAY AFTERNOONS AND SOCIAL HOURS.

These Exercises may be used as Readings or Recitations. The Editor will be glad to receive contributions from teachers and others.

FOR A LITTLE BOY.

I am a little boy, you see, not more than three feet high (measures with his hand); but some day I expect to be a boy not quite so shy. I cannot speak a long piece now; you see I am too small; but if you are willing, I will wait till I grow tall; so good-bye to you all (bows and waves his hand to the audience).

A SPRING IDYL.

Welcome, Smiling Spring.

The earth puts on a cheerful mein
The birds sing carols gay,
As tearful April leaves the scene
And enters smiling May.

Grass and Flowers.

The lawn its emerald robe assumes
The bud adorns the tree,
The primrose in the meadow blooms,
The daisy decks the lea.

A Morning Salute.

The jocund farmer sows the corn
Where late the snow-flakes fell,
The mackerel man at early morn
Awakes us with his yell.

Pussy Willows.

Now soft and balmy is the air,
And merry maidens go
To seek for "pussy willows" where
The yellow catkins blow.

Come to Stay.

Now murmur low the rippling streams
That through the valley stray;
The days grow warmer, and it seems
That spring has come to stay.

—*Boston Courier.*

BOYS' RIGHTS.

Ladies and gentlemen, if you will give me your attention, I will speak to you a few minutes about boys' rights. People seem to think that a boy is only to make himself useful. If a shower comes up while the family is at church, a boy can just run home through the pouring rain and bring half a dozen umbrellas back with him. "Rain," they say, "is good for boys,—it makes them grow." But let that same boy suggest on

Tuesday, if it happens to be a rainy day, that he would like to go fishing, and at once he hears from all sides, "O, no; you will catch your death-cold. Stay at home and work in the garden!" Now, what I want to know is: Why it isn't just as dangerous for a boy to get soaking wet working in the garden on a rainy day as to go fishing.

I think boys are entitled to their share of room in the world, but they don't get it. If a boy happens to get a good place where he can see the parade, some big man comes along and crowds him out of it. If he spends his last cent for a good whistle, and thinks he is going to have a fine time with it, he wakes up some morning and finds it missing, "because it makes so much noise no one could endure it." Now, I'd like to have a fiddle and a drum and an accordeon and a bagpipe, and invite the boys to come and have a grand concert once in awhile, but I'd get sent out in the street quick if I should try it once.

But I shall be a man some day, and I'll make things right. Boys will have a good time then, I tell you. It seems as though I should never grow up,—but I shall, and then I'm going to be the biggest kind of an advocate for boys' rights. — *Young Folks' Speaker: Nat. School of El. and Or., Philadelphia.*

VACATION SONG.

I have closed my books and hidden my slate,
And thrown my satchel across the gate;
My school is out for a season of rest,
And now for the school-room I love the best!

My school-room lies on the meadow wide,
Where under the clover the sunbeams hide,
Where the long vines cling to the mossy bars,
And the daisies twinkle like fallen stars;

Where clusters of buttercups gild the scene,
Like showers of gold-dust thrown over the green,
And the wind's flying footsteps are traced, as they pass,
By the dance of the sorrel and dip of the grass.

My lessons are written in clouds and trees,
And no one whispers, except the breeze,
Who sometimes blows, from a secret place,
A stray, sweet blossom against my face.

My school-bell rings in the rippling stream,
Which hides itself like a school-boy's dream,
Under the shadow and out of sight,
But laughing still for its own delight.

My school-mates there are the birds and bees,
And the saucy squirrel, less wise than these,
For he only learns, in all the weeks,
How many chestnuts will fill his cheeks.

My teacher is patient, and never yet
A lesson of hers did I once forget,

For wonderful lore do her lips impart,
And all her lessons are learned by heart.

Oh, come! oh, come! or we shall be late,
And autumn will fasten the golden gate
Of all the school-rooms, in east or west,
The school of Nature I love the best.

—*Katherine Lee Bates, in Christian Union.*

SPRING'S PRESAGINGS.

[Translated from the German.]

Springtime's coming now appeareth,
In the grove sweet fragrance breathes,
Nightingale the time endareth,
Purest green the earth enwreathes;
Flowers of white and rosy gleaming
Paint themselves on soft rays beaming,
Pleasure beckons; every heart
In the springtime joy takes part,
In joy takes part.

Bridal garments thou art wearing,
Gentle earth, so young and fair;
And thy fountains' brinks are bearing
Dainty flowers, thy tender care.
Flowering trees their blossoms bringing,
Fragrance wafting, pearls upspringing
From the valley wet with night,
Joyfully in morning light,
In morning light.

And of thy rare beauty rhyming,
Sounds thy New Year's festal song;
Voice of larks and flute-notes chiming,
Echoes sweet the tones prolong.
Silver-clear the joy-stream seemeth,
From the springs of love it streameth.
Wondrous Nature, mighty heart,
Ever new, unchanged thou art,
Unchanged thou art.

—*Eva March Tappan.*

GLADSTONE AS A BOY.

John Gladstone, the father of the present premier of Great Britain, trained his children to give a reason for every opinion they offered. It was in this way that Mr. Wm. E. Gladstone was early trained to debate. On one occasion William and his sister Mary disputed as to where a certain picture ought to be hung. An old Scotch servant came in with a ladder, and stood irresolute while the argument progressed; but as Miss Mary would not yield, William gallantly ceased from speech, though unconvinced, of course. The servant then hung up the picture where the young lady ordered; but when he had done this he crossed the room and hammered a nail into the opposite wall. He was asked why he did

this. "Aweel, Miss, that will do to hang the picture on when ye'll have come round to Master Willie's opeenion." The family generally did come around to William's opinion, for the resources of his tongue-fencing were wonderful, and his father, who admired a clever feint as much as a straight thrust, never failed to encourage him by saying: "Hear, hear! Well said! Well put, Willie!" if the young debater bore himself well in the encounter.—*Golden Days.*

THE BUTTERFLY.

Frail beauty of the spring and summer's sun,
Thou dost a noiseless path pursue through air,
Alighting on some pretty flower with care,
Sweet juices from its nectary to steal
As goodly food for thee. Thou dost reveal
In silence to the thinking mind, a power,
And goodness great, divine. But in an hour
Thy dust will gathered be; and all in vain
Will brightest sunbeams shine for thee again.
Thy brief and sunny course will then be run:
Thy golden wings betray thy life so short,
O! that I could the youthful hands exhort
To leave thee to thy pleasure sweet which none
Can give thee back when 'tis forever gone!

—*F. Peel, in the Quiver.*

AN EVENING SONG.

A dull red glow in the distant west
Follows the round sun in his flight;
The tumultuous town sinks into rest,
And willingly sleeps in the arms of night.

So, as the passions of youth assuage,
The fires of hope burn low in the breast;
Ambition dreams in the arms of age,
And the worn heart whispers, "It is best."

—*W. W. Gay.*

NOBLE WORDS.

Whene'er a noble deed is wrought,
Whene'er is spoke a noble thought,
Our hearts, in glad surprise,
To higher levels rise.

The tidal wave of deeper souls
Into our inmost being rolls,
And lifts us unawares
Out of all meaner cares.

Honor to those whose words and deeds
Thus help us in our daily needs,
And by their overflow
Raise us from what is low!

—*Longfellow.*

QUESTION DRAWER.

Communications for this Department should be addressed to QUESTION DRAWER, 3 Somerset Street, Boston, Mass.

"What is the best method of teaching children to read?"

In answering this question, it is to be said, at the outset that most of the process of learning to read consists of two parts,—first, seeing words; and second, either hearing or thinking the sounds for which the written words stand. This direct appeal to the eye, and direct or remote appeal to the ear, constitute the real process of teaching reading, whatever theory may lie back of one's practice. An alphabetic language is a representation of a spoken language; it is not a new language, to be learned after the method of learning the spoken language; it is rather a set of signs for the spoken language. Hence the larger part of the work to be done by the pupils while learning to read English consists in acquiring the ability to call the words at sight. Therefore I think it better to come to the substantial part of the process at the outset, and to begin to do at once what must ultimately be done before the child can read.

Now there are, of course, two ways of causing pupils to know the sounds corresponding to the words which they see. One way is to let the child see the word, and the teacher at the same time speak the word. When this has been done times enough, the sight of the form will suggest the sound; and this result is no doubt reached more quickly if the idea for which the word stands is clearly in the mind at the time of seeing and hearing.

But there are a good many words in the English language, so that this telling process must finally cease, and some other device be adopted by which the child shall be able to ascertain for himself what the sound is for which a form stands. In other words, he must learn to call new words without help; and he can never read till this new power is gained. And this ability is always exercised through the process of analysis of the written word, and hence is to be gained by the same process. But this analysis of the written form is to be accompanied by a corresponding synthesis of the spoken word, or rather of the elements of the spoken word.

Now a condition precedent to this synthesis in connection with seeing is the association of elements of form, that is letters, with the elements of sound, that is the individual sounds for which the individual letters are the symbols. Of course the unconscious association that is made in seeing words as wholes and calling them in the same way will ultimately develop the power to call many words; but it is a slow and tiresome process compared to the process of conscious association.

So, it seems to me, it is the best way to begin at once with the work which the pupils must ultimately perform; namely, the analysis of sound and form and the corresponding synthesis. Accordingly, I would use the word

method only so far as it is necessary in order to enable pupils to recognize the elements of vocal speech as such, and then go at once to the phonetic method.

LARKIN DUNTON, LL.D.

"How can I do satisfactory work with pupils whose boon companions are dirt and rags and vice? Professional enthusiasm does not thrive in such an atmosphere.

A. Q. S.

Ind.

Overcome the dirt, and the rags and vice will, at least, diminish. What more inspiring work can you desire than that of teaching fifty or sixty boys and girls from the "slums" to respect themselves? You can do it, too. Not by means of moral lectures, but by making your pupils admire and respect you to such an extent that they will try, in every way, to be like you. To begin with, dress to please the children; wear clean linen, bright ribbons, and flowers when you can. Go out at recess and enter into the children's sports. In this way you may prevent the fighting and swearing which would be in order if you were not there. Be especially careful to praise those who do what you would like to have all do. Praise the boy who wears a collar and tie, and most of the boys will wear them before many days. Praise the girl who has her hair neatly combed, and the frowzy heads will soon be in the minority. When the children are wholly in sympathy with you, fit up one corner of the room with a mirror, basin, towels, and brushes, and insist that no untidy child shall be found in the school.

When your pupils have learned how to be clean, they will wish to be whole. With the disappearance of rags and dirt they will gain a certain self-respect which will make it much easier to promote their moral welfare. Surely no teacher can find such work unwelcome or unsatisfactory, for, though at first it may not be pleasant, she will find out soon that very stout and loyal little hearts can beat under rough jackets.

"Why is it that teaching, which ought to be productive of health in both teachers and pupils, is the cause of so much bad health, and what is the true remedy?"

A.

Boston.

The DRAWER is of the opinion that this evil is due to an amazing lack of common sense, though it would be an unpleasant task to distribute the responsibility. Much has been said of the ill-health of pupils, from the primary school to the university; but, while it is true that many bright young girls go into the school-room to come out in less than five years broken down in body and mind, little effort is made to determine the cause or to find a remedy. Indeed, one well-known city superintendent told some of his teachers, not long ago, that it was his business to consider pupils first and last; for his reputation depended on satisfying the demands of parents, while he could get a fresh supply of teachers every year, if necessary.

In view of such a sentiment, suggestions as to the "true remedy," especially for the ill-health of teachers, will be most gratefully received.—Ed.

NOTES AND QUERIES.

Questions and answers for the Notes and Queries should reach us by the first of each month to insure publication in the following number.

We desire that our patrons should consider themselves at liberty to take part in the discussions of the Notes and Queries. You are invited to send in such questions as you desire to have answered; we also solicit answers to questions given.

ALL COMMUNICATIONS FOR THIS DEPARTMENT MUST BE SENT TO THE EDITOR, 3 SOMERSET STREET, BOSTON, MASS.

ANSWERS TO QUERIES.

155. What was the distinguishing characteristic of the House of Stuart?

The Stuarts were patrons of the fine arts. The price of pictures is said to have doubled during the reign of Charles I. The history of art, literature, architecture, and science of that time contains some of the most brilliant names on record: Art,—Van Dyke and Rubens; literature,—Shakespeare and Johnson, Taylor and Fuller; architecture,—Sir Christopher Wren and Inigo Jones

C. W. G.

Belief in the divine rights of kings.

F. C. S.

156. When and in what country was paper invented?

The origin and early history of paper appears to be lost in insurmountable obscurity, but all circumstances point to China as being the country where the art of paper-making was first practiced and from which a knowledge of the material was first obtained. It is certain that the industry was established in China several hundred years before the Christian era, and at that remote period was an article of much importance among the Chinese. The principle source of Chinese paper to the present day is the inner bark of the paper-mulberry tree. About the eleventh century the Arabs made paper from raw cotton, which for nearly three centuries was the only paper known in Europe. In 1390 a mill was established in Nürnberg, Spain, where it was discovered that linen and hemp were, with cotton, equally available for manufacture. The earliest notice of paper being made in England occurs in a work printed by Caxton in 1490, where an allusion is made to paper made by John Tate, to whom Henry VII. gave money in 1498 and 1499 as an encouragement for the working of his mills in Stevenage in Herts. In the eighteenth century James Whatman raised paper-making in Great Britain to a high degree of perfection.

ELLA J. D., *New York.*

Credit to F. C. S. and C. W. G.

157. In what century did bells and organs begin to be used in churches?

Organs are said to have been introduced in some of the churches of western Europe about 670. The earliest trustworthy account is of one sent to the king of the Franks in 755. They were common in England before the tenth century. Bells were used in England in the seventh century. In 400, at Nola, a town of Campania.

C. W. G.

In the seventh century.

F. C. S.

Credit to Ella J. D., *New York.*

158. What is the history of the "Field of the Cloth of Gold"? "Field of the Cloth of Gold" was an open space where an interview was held between Henry VIII. of England and Francis I. of France. The nobility on both sides embraced the opportunity for a display of great magnificence.

LILLIAN F. SHELDON, *No. Beverly, Mass.*

Credit to C. R. Vandevort, Peoria, Ill.; Abbie E. Crosby, Milford, N. H.; F. C. S., and C. W. G.

159. What place is called the "Little Gibraltar," and why?

The city of Quebec is often called the "Gibraltar of America," or "Little Gibraltar," because of its position and its natural and artificial means of defence. It is, perhaps, the most strongly fortified city of America.

ABBIE E. CROSBY, *Milford, N. H.*

Louisburg, from its position and strong fortifications.

F. C. S.

160. *Literary Enigma*,—composed of 65 letters:

1, Emerson; 2, Bulwer-Litton; 3, Pompeii; 4, Chaucer; 5, Huxley; 6, Ivanhoe; 7, Bryant; 8, Thanatopsis; 9, Dean Swift; 10, Irving; 11, Hughes; 12, Milton; 13, Defoe. "I have but one lamp by which my feet are guided, and that is the lamp of experience." This is an extract from the speech of Patrick Henry, before the Virginia Convention in 1775.

ABBIE E. CROSBY, *Milford, N. H.*

Credit to Maria B. Landis, Oxford, N. C.; Ella J. D., New York; Ida H. Wallace, Atlantic, Iowa; Mrs. D. S. Wiley; A. M. S., Roxbury, Mass.; H. M. G., So. Duxbury, Mass.; M. W. Crosby, Taunton, Mass.; Annie E. Fox, Gardner, Ill.; A. A. Thomas, Prairie Lea, Texas; L. M. W., Connecticut.

161. Is the following sentence correct, and if not, how should it be corrected? "Have you paid your accounts?" D. O., *Iowa.*

Accounts is incorrectly used, because accounts are written statements in detail of moneys due for goods purchased or services of any kind rendered, and it is an absolute impossibility for a person to pay them; but debts, or the moneys or services due, can be paid if in the person's power; therefore, the correct sentence is, "Have you paid your bills?"

ELLA J. D., *New York.*

162. At what point on the earth's surface can a person stand so that at any time during the day his shadow will point south, and why?

D. O., *Iowa.*

At the north pole, because there your shadow always points away from the north, which is toward the south.

A. A. THOMAS, *Prairie Lea, Texas.*

Credit to H. M. F., *Iowa.*

QUERIES.

223. How old, or at least, how far advanced scholars should be when they begin to study arithmetic? also when should they begin to use a spelling-book?

L. C., *Elcho, Nev.*

224. A horse is worth four per cent. more than a buggy; the buggy is worth twelve per cent. more than a harness. Three-fourths of the buggy is given for the harness, losing \$10.30. What is the value of the horse?

225. A man standing forty five feet from a railroad train passing by at the rate of forty-five miles an hour. When the train has passed forty-five feet beyond a man, he fires a pistol at a letter X. What allowance must be made to hit the center of the X?

J. T. M.

226. "A remarkable explosion which occurred in Germany shows the force possessed by dust. A sack of flour, falling down stairs, opened and scattered its contents in a cloud through the lower room, when a burning gas-flame set fire to the dust, causing an explosion which lifted a part of the roof of the mill and broke all the windows." How did the dust explode? What in it could be productive of an explosion? It is said that in the carding-rooms of woolen mills, where there is a great deal of dust, explosions occur. What, in this case, if it be true, causes the explosion?

M. E. S., *Trenton, N. J.*

227. In case of the death of the vice-president of the United States, is his office filled before the end of the term?

228. What are the duties of the vice president, aside from presiding over the Senate, and, in case of the removal by death, resignation, or inability of the President, to discharge the duties of the President?

229. Do judges of the U. S. Supreme Court wear wigs and robes when in court?

230. How are soldiers arranged, in action, so that they will not shoot each other, the ones in front being in range of the guns of those behind them?

231. When does the harvest-moon occur, and what is the cause of it?

232. Which is correct, "To-morrow is Friday," or "To-morrow will be Friday"? Why?

233. What was the name of the Maid of Bregenz?

"Nine, ten, eleven," he cries aloud,
And then, O crown of fame!
When midnight pauses in the sky
He calls the maiden's name."

J. J. S., *Brookline, Mass.*

The Kindergarten, AND PRIMARY EDUCATION.

All communications for this department should be sent to W. N. HAILMANN, La Porte, Ind.

I have still on hand four hundred copies of Dr. Seguin's celebrated *Report on Education*, which I will sell for the benefit of the Froebel Institute of North America, at 50 cents per copy. The book was originally sold for one dollar. It is a rich storehouse of new and fresh ideas on education. The proceeds of the sale go to the publication fund of the Froebel Institute of North America.

W. N. HAILMANN, La Porte, Ind.

All who desire to become members of the Froebel Institute of North America will please send the annual fee of \$1.00 to the treasurer, B. E. Huntoon, Supt. Blind Asylum, Louisville, Ky., or to the president, W. N. Hailmann, La Porte, Ind. Members are entitled to one copy of the Proceedings of the Madison meeting, a volume of about 300 pages, and will receive as a premium a copy of Seguin's celebrated *Report on Education*, donated for this purpose to the Froebel Institute.

KINDERGARTEN ECHOES.

— Miss Blow has severed her connection with the St. Louis kindergartens.

— The Froebel Institute of North America will have no meeting this summer.

— Miss Carrie M. Hart succeeds Miss Hailmann at the Provincial Normal School at Toronto.

— It is reported that in England and Wales 841,128 children attend the infant schools, but that true kindergartens for these children are rare.

— The second number of *The Free Kindergarten* appeared at Chicago in April. It gives an excellent account of the progress of the work in Chicago and Milwaukee.

— The Prussian Minister of Education was asked to subject kindergartens to an official examination. He refused chiefly on the plea that the qualities that fit her for her work lie chiefly in her disposition, her tact and general character, rather than in mere knowledge and skill; and that an ordinary examination can furnish no evidence of these qualities.

— A Chicago teacher thinks that "six-year-old school children are too old for sticks; at least, if they are not they ought to be." This surely depends much on the way in which sticks are used. If they are used as I have seen them used in so-called *busy work* they accomplish nothing for the child at any age. On the other hand, I have seen them used to great advantage in the teaching of elementary geometry with pupils thirteen and fourteen years old.

— A writer in the *School Music Journal* makes war upon note-singing for little children. It seems he would have them sing from notes at the start. What will the man do with the mother who pours out in sweet song her love to her babe? and what will the children do to learn the little strains that enliven their games? To forbid the child to sing by imitation and from spontaneous impulse seems like forbidding it to talk before it knows the alphabet.

"DROP IN AGAIN."

[From Mrs. KATE D. WIGGIN's Report of the Silver-street Kindergarten Society.]

Something in the same line of criticism was the remark of an educational fossil who visited us lately. He spent the three morning hours in the kindergarten, and having introduced himself as a school director from the country, was paid every attention. At 12 o'clock he thanked the teachers for their courtesy, and said, "he guessed he'd drop in again when there was some *teaching* going on, as he wanted to see what the kindergarten system really amounted to."

The education of the senses, the training of the faculty of speech, the exercise of the creative powers, the development of manual skill, delicacy, and power, the incessant industry, the promotion of bodily health by physical activity, the stimulation of imagination and reason, the attempt to form habits of attention, concentration and obedience, the gentle insistence upon good-manners, kind words, generous deeds, the reverent thought of God and God's universe, the hourly appeal to the "devout feeling, clear thinking and noble doing," of which Froebel speaks,—all these were as naught; the gentleman wished "to drop in when there was some *teaching* going on,"—teaching in his mind being indissolubly connected with a text-book and a rattan.

"What," said the kindergartner, tearfully, in recounting the incident, "what could have been the matter with that man? We fairly 'crammed' the children that morning, merely because, if he liked it, he wanted to connect the kindergarten with the public schools in his town. One of us had a building lesson, showing number and form; another had a drawing dictation with the five-year old class that he couldn't have followed himself, and I, instead of folding the 'rabbit' in the paper-folding exercise, and then the 'house,' and finally ending up with a lovely play and story, in which the children and the rabbits were all to join, and hear about 'the naughty bunny who ran away from his master,' what do you think I did as a conciliation? I kept my poor babies on a geometrical form, and made them count sides and corners and angles and squares and oblongs and triangles, until my conscience was seared. It did not impress him a bit, and I had the punishment I deserved. Then, when play-time came, we selected the games very carefully. We had 'The Shoemaker' and 'The Wheelright,' to give an idea of the simple trade games; then 'The Trees,' where each child personates a tree, and tells its name as he plants himself in the avenue. Then the birds built their nests in some of the trees, and cunning baby Mary was a mother bird, and the mere sight of her as she gathered rough little Tim Casey and the bad little Baer boys under her wings was enough to melt the heart of a stone; and when I looked up what do you think he was doing? Reading the Fire Department page in the Directory!"

We give this incident in full, because it stands for a dozen others, and gives an idea of the way in which the kindergarten is misunderstood, or fails to be understood.

THE PRIMARY SCHOOLS OF LAPORTE, IND.

[Continued from April No.]

SECOND GROUP OF SUBJECTS.—I. *Number*: Counting by ones, two, threes, fours, and fives. Addition, subtraction, multiplication, measuring, division, and part-taking within the limits, successively of 1 to 5, 1 to 10, 1 to 20, and 1 to 100; similar operations with fractions within the limits, in corresponding sub-circles of halves to fifths and halves to tenths. Problems of exchange, of buying and selling. Games of "giving" and "guessing." Materials used: Blocks, tablets, splints, paper strips, beads, buttons, marbles, etc.

2. *Size*: Measuring and estimating dimensions, distances, areas, volumes in inches, feet, and yards (long, square, and cubic measure); lifting and weighing within reasonable limits; exercises in measures of capacity.

THIRD GROUP OF SUBJECTS.—I. *Physical and Chemical Properties*: Classifying substances by their weight, hardness, smoothness of surface, solubility, and similar properties. Suitable collections of substances to be made and labeled by the children.

2. *Natural History*: Observations of plant growth, classifying leaves, flowers, fruits, roots, plants, and animals by prominent characteristics; collection and description of plants; observation and description of animals; parts of the human body.

3. *Geography*: Names or days, months, and seasons; observations of the sun's position at stated times, of the course of the sun in different seasons, of the change of the moon, cardinal points of the compass; prominent constellations and stars; counting rainy days, and days of sunshine; keeping records of the wind and weather; localities of plants and animals in distant countries; sketches of the school-room, the school-grounds, the home, the way to school; certain prominent localities; bird's-eye views on sand-table and clay-board.

FOURTH GROUP OF SUBJECTS.—I. *Sociology*: Social games; dramatizations of the occupations of men and women; construction of railroads, canals, bridges, tunnels, etc., on the sand-table; discussion of home and school relations.

2. *History*: Accounts of events in the child's life; anecdotes from the lives of children; keeping of class-records.

FIFTH GROUP OF SUBJECTS.—I. *Language*: Conversation is at the very soul of all the exercises heretofore named. In addition: Exercises in the reading and writing of simple sentences and words; word-building from given sound-elements; contrasting and combining classes of words; labeling and taking notes in connec-

tion with other subjects of study; writing of orders, accounts, letters, notices, and stories; reading from books and periodicals within the scope of the First, Second, and Third Readers. As soon as the child has sufficiently mastered script, the transition to the printed form of the letters is made with the help of reading-charts, dissected letter-cards, the class-reader, and the semi-monthly "school-reader."

2. *Music*: This appears incidentally in the social games and dramatizations of the fourth group. In addition, exercises in the recognition and production of sounds in pitch, relative duration, in melodious and harmonious arrangement, in rhythm, and musical expression.

SECOND CIRCLE.

(Comprising the third and fourth school years.)

FIRST GROUP OF SUBJECTS.—I. *Form*: Extension of First Circle; analysis of the cube, sphere, cylinder, and prisms by cuts parallel to the axis; truncation of pyramids and cones by cuts parallel to the base; sub-division of triangles by "altitudes," of other polygons by diameters and diagonals, of the circle by diameters (semi-circle, quadrant, sextant); synthetic exercises in reconstruction and invention, oral and written descriptions of geometrical forms; materials, as in First Circle.

2. *Drawing*: Extension of First Circle; In automatic drawing, trisection is added; in inventive drawing, designs in which the equilateral triangle, hexagon, octagon, and circle form the base, are reached; in concept drawing, the observation of parts of objects in their relations; sketches of trees, houses, familiar animals, and children; drawing of cubes, prisms, and pyramids from solid and skeleton models, prepared by the children; materials used, same as in First Circle; practice in the use of the miter-square, and half of the equilateral triangle.

3. *Coloring*: Extension of First Circle in accordance with the work of drawing; exercises in the mixing of colors.

SECOND GROUP OF SUBJECTS.—*Number and Size*: Extension of the work of the First Circle, successively within the limits of 1 to 200, and 1 to 1,000; in fractions within the limits of $\frac{1}{2}$ to $\frac{1}{100}$, with such omissions as appear necessary. Preparation of multiplication tables, within the limits of (1 to 9) times (1 to 12); of addition tables, and corresponding subtraction tables; of division tables within the limits of (2 to 100) divided by (2 to 20); and of fraction or *part-taking* tables within the limits of ($\frac{1}{2}$ to $\frac{1}{100}$), of (2 to 100). Practice in the use of tables of time (by the clock), of U. S. money (with decimal notation), of avoirdupois weight, liquid measure, dry measure, long, square, and cubic measures.

THIRD GROUP OF SUBJECTS.—I. *Physical and Chemical Properties*: Extension of First Circle; description of substances by groups of qualities involving simple

experiments; talks and simple experiments on the influence of heat on water, fogs, clouds, rain, snow, ice, the balloon, solution, filtration, the magnet, the magnifying glass, length of shadow, etc.

2. *Natural History*: Extension of previous circle. The following objects are suggested: Cat, dog, horse, cow, sheep, pig, mouse, hen, goose, pigeon, robin, black-bird, frog, turtle, white-fish, bass, June-bug, honey-bee, some butterfly or moth, the house-fly, the metamorphosis of the frog and of the butterfly; anemone, "Spring-beauty," buttercup, apple or plum-blossom, honeysuckle, strawberry-plant, tulip, may-apple, water-lily, bean or pea, potato-plant, wheat, Indian corn, garden vegetables; table-salt, alum, gypsum, lime-stone, clay, iron, lead, copper, silver, gold, sulphur, stone-coal, etc.

3. *Geography*: Extension of previous circle; accounts of trips; sketches of Pine Lake; map of La Porte; map of Indiana and of the United States; readings from *Our World*, *Seven Little Sisters*, and similar books. The sand-table and clay-board, as well as other drawing surfaces, should be freely used during these lessons and readings.

FOURTH GROUP OF SUBJECTS.—1. *Sociology*: Extension of previous circle; talks about trades, commerce, and manufactures, agriculture, modes of travel and transportation, chief officials of the city, county, state, and United States government.

2. *History*: Extension of previous circle; also biographical sketches of good men and women in the city, county, state, and United States; record of events in the city.

FIFTH GROUP OF SUBJECTS.—1. *Language*: In addition to the conversations, reading, and writing involved in the previous groups. Exercises in sentence-building, giving practice in the different forms of predication, the formation of the plural, of objective and possessive forms, of adverbs, the past tense, and in the use of the S form of verbs; writing of letters, invitations, bills, advertisements, and other business compositions; word-collections and other word-games; dictation exercises to secure correct and prompt penmanship; word analysis and corresponding word-building. Additional reading is furnished in the semi monthly "school-reader" and in the circulating school-library.

2. *Music*: Extension of work in previous circle.

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FACTS.

WORDS.

Coke is cooked *coal*.

Foreign, out of doors.

Dandelion, lion's tooth.

Clew is now better than *clue*.

To alarm means to call to arms.

Adieu, "I commend you to God."

Bankrupt, broken bank (*ruptus*, broken).

Dainty, toothsome (*dens, dentis*, a tooth).

Heresy was simply a choice (*haireses*, choice).

Cotillon has succeeded *cotillion* in popular favor.

Anglo-Saxon *begin* is better than French *commence*.

Astonished is thunder-struck (*ad, at; tonno*, to thunder).

Imbecile, leaning on a staff (*in, upon; baculum*, a staff).

Bib, drinks up that which the babe spills (*bibo*, to drink).

Councillor is a member of a council, while *counsellor* gives advice.

Lent is derived from the Anglo-Saxon *lencten*, which means spring.

Insult, to leap upon the prostrate body of a foe (*in, upon; salio*, to leap).

Cranberry is *crane-berry*, its stalk resembling the legs and neck of a crane.

Encroach, put a hook into a man's possessions to draw them away (*croc*, a hook).

Divest, to deprive of that which covers, etc.; *devest*, in law, to deprive of, or alienate, an estate.

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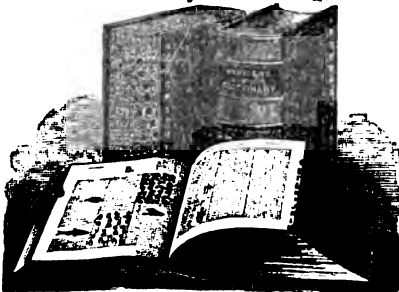
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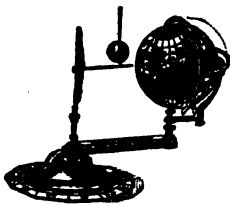
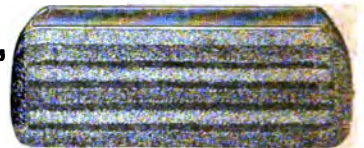
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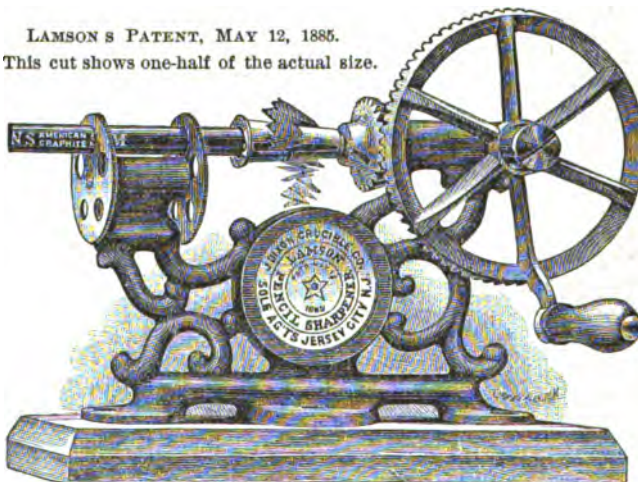
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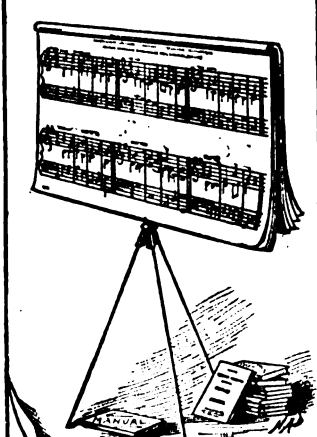
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